

Carnegie Mellon University

COMMENCEMENT 2019

May 18-19



THINK OF YOURSELF
AS ON THE THRESHOLD
OF UNPARALLELED
SUCCESS. A WHOLE,
CLEAR, GLORIOUS LIFE
LIES BEFORE YOU.

ANDREW CARNEGIE

FOUNDER, CARNEGIE MELLON UNIVERSITY

Welcome



To the graduates, families and friends of the Carnegie Mellon Class of 2019:

Welcome to Carnegie Mellon University's 122nd Commencement Ceremony.

Today, we celebrate the achievements of the CMU Class of 2019. Since arriving on campus, these students have been immersed in work that matters — in boundary-crossing education and research, outstanding creativity and performance, and community service and engagement. Bound by a core set of values that includes integrity, inclusion, collaboration and empathy, these remarkable graduates have changed this campus for the better, and will change the world.

We are especially grateful to the families and friends of the graduates who have come here today to celebrate with us. Graduation from a demanding academic institution like Carnegie Mellon is a team effort: these students could not have succeeded without your steadfast love and support over the years. Today, you share in their well-deserved accomplishments.

As one chapter of their lives closes, another begins. Today, the Class of 2019 is joining a worldwide community of more than 112,000 alumni who have experienced the power of a CMU education to make a difference in the world. Graduates: I encourage you to take advantage of this network and remember to share your accumulating knowledge and experiences with the students who follow in your footsteps.

On behalf of the entire Carnegie Mellon community, I wish the Class of 2019 great success, fulfillment and happiness in the years ahead. Congratulations!

A handwritten signature in black ink that reads "Farnam Jahanian". The signature is written in a cursive, flowing style.

Farnam Jahanian
President
Henry L. Hillman President's Chair
Carnegie Mellon University



Follow the conversation: [#cmugrad](#)

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Program

Commencement Declaration

Joel Greenhouse

Professor of Statistics, Department of Statistics and Data Science

The National Anthem

Vocal Performance Class of 2019

Alexandra Aks (A 2019)

Vincent Angelo (A 2019)

Sarah Barker (A 2019)

Daniel Brennan (A 2019)

Sophia Burnham-Lemaire (A 2019)

Avery Devine (A 2019)

Colleen McGovern (A 2019)

William Ottow (A 2019)

Robert Raso (A 2019)

Sydney Roslin (A 2019, DC 2019)

Brielle Marie Stovall (A 2019)

Mark Tamvakis (A 2019)

Alex Taylor (A 2019)

Taylor Troyer (A 2019)

Ian Young (A 2019)

Invocation

Rabbi Shlomo Silverman

Director, Chabad of Carnegie Mellon University

Vice Chair, Carnegie Mellon University's Council of Religious Advisors

Please be seated following the invocation.

Welcome

James E. Rohr

Chair, Board of Trustees,
Carnegie Mellon University;
Retired Executive Chairman,
The PNC Financial Services Group

Remarks and Recognitions

Farnam Jahanian

President
Henry L. Hillman President's Chair

Student Speaker

Hamza Qureshi (A 2019)

Conferral of Honorary Degrees

Farnam Jahanian

James H. Garrett Jr.

Provost and Chief Academic Officer
Thomas Lord Professor of Civil and
Environmental Engineering

Candidates for Honorary Degrees

Darlene Clark Hine

John A. Hannah Distinguished Professor
of History, Michigan State University
Doctor of Humane Letters

David M. Kelley (E 1973)

Donald W. Whittier Professor
in Mechanical Engineering,
Stanford University
Founder, Hasso Plattner Institute of
Design, Stanford University
Founder, IDEO
Doctor of Science and Technology

John Shaffner (A 1976) and

Joe Stewart (A 1977)

Emmy Award-Winning Production
Designers, Shaffner/Stewart Production
Design
Doctor of Fine Arts

Leslie Odom, Jr. (A 2003)

Tony and Grammy Award-Winning
Performer
Doctor of Fine Arts

Keynote Speaker

Leslie Odom, Jr.

Welcome to New Alumni

Alex DiClaudio (DC 2009, HNZ 2011)

President, Alumni Association Board;
Managing Director and Co-Founder of
Bedford Funds, L.P.

President's Charge to the Class of 2019

Farnam Jahanian

Conferring of Bachelor's, Master's and Doctor's Degrees

Farnam Jahanian

James H. Garrett Jr.

Jonathan Cagan

Interim Dean, College of Engineering
and George Tallman Ladd and Florence
Barrett Ladd Professor of Mechanical
Engineering

Dan J. Martin

Stanley and Marcia Gumberg Dean,
College of Fine Arts

Richard Scheines

Dean, Dietrich College of Humanities
and Social Sciences

Ramayya Krishnan

H.J. Heinz Dean, Heinz College of
Information Systems and Public Policy
and William W. and Ruth F. Cooper
Professor of Management Science and
Information Systems

Rebecca W. Doerge

Glen de Vries Dean, Mellon College
of Science

Tom M. Mitchell

Interim Dean, School of Computer
Science and Founders University
Professor

Robert M. Dammon

Dean, Tepper School of Business

Michael A. Trick

Dean, Carnegie Mellon in Qatar and
Harry B. and James H. Higgins Professor
of Operations Research

The Alma Mater

Vocal Performance Class of 2019

Please join in.

*Here, where spangled wildernesses
Robed the fountains of the West,
Where the savage strife and stresses
Brought the settlers' crimson quest:
Land of legend, glory, graces,
Gypsy tide and toiling shore,
'Mid thy hilltops, Alma Mater,
Stands enthroned forevermore.
All Hail, Carnegie, Alma Mater
Stands enthroned forevermore.*

Initial Interpretations

- | | |
|-----|---|
| A | College of Fine Arts |
| DC | Dietrich College of Humanities
and Social Sciences |
| E | College of Engineering |
| HNZ | Heinz College of Information
Systems and Public Policy |



Follow the conversation: #cmugrad

Procession

10:15 a.m. The procession starts.
ALL GUESTS SHOULD BE SEATED BY THIS TIME. Guests are not permitted on the track or in the aisles during the procession.

ORDER OF PROCESSION

- Candidates for Bachelor's and Master's Degrees (processing by college)
- Faculty
- Candidates for Doctor's Degrees (processing as a group)
- Deans, University Leadership and Board of Trustees

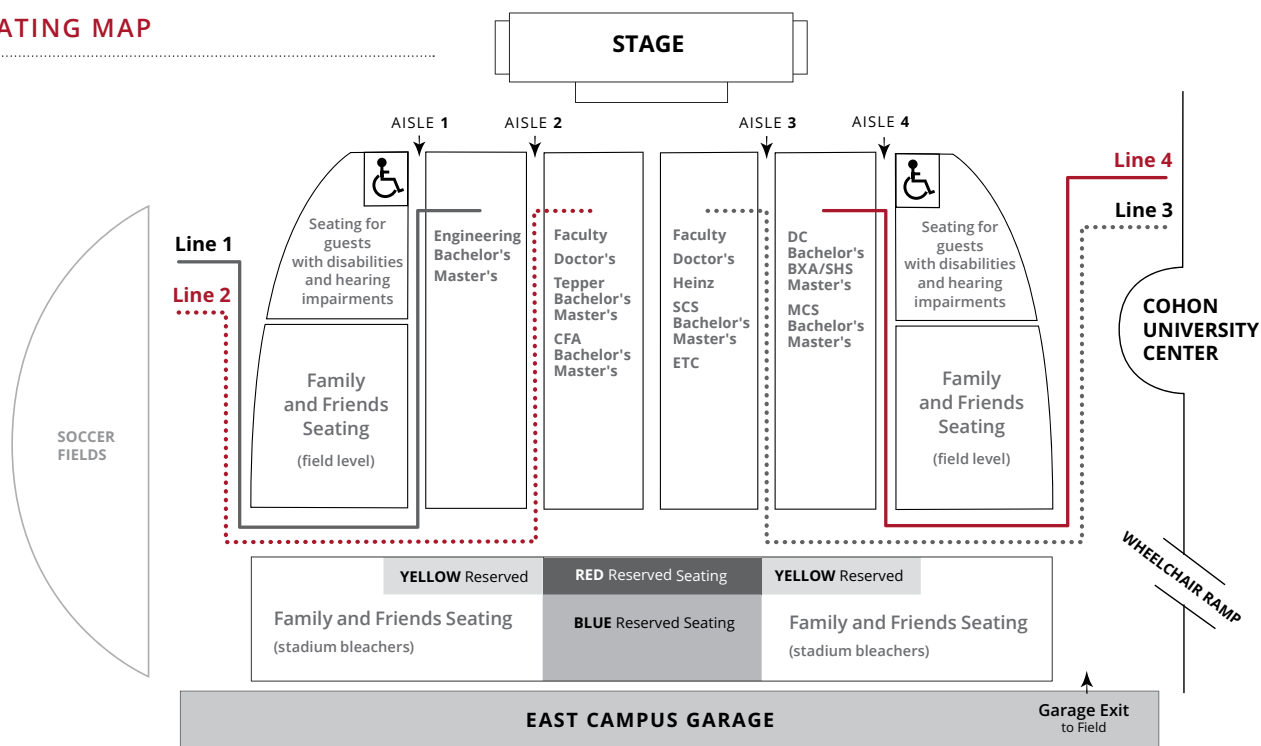
CANDIDATE SEATING

Candidates will be seated in the four center seating bays according to their college's section on the field. Family and friends seating is also available on the field. To identify where your graduate will be seated, please see the seating map below.

RECESSION

To ensure that all graduates and special guests may exit smoothly, please remain seated until those seated on the stage have left the field. Please determine where you need to go after the ceremony and use the appropriate exit route.

SEATING MAP



Line 1

Engineering Bachelor's
Engineering Master's

Line 2

Tepper Bachelor's
Tepper Master's
CFA Bachelor's
CFA Master's

Line 3

Heinz
SCS Bachelor's
SCS Master's
ETC

Line 4

DC Bachelor's
BXA
SHS
DC Master's
MCS Bachelor's
MCS Master's

Restrooms are located in all campus buildings and under the bleachers in Gesling Stadium.

Marshals

Faculty Marshal

Joel Greenhouse

Professor of Statistics, Department of Statistics and Data Science

Platform Group

Gina Casalegno

Vice President for Student Affairs and Dean of Students

College of Engineering

Amit Acharya

Professor, Departments of Civil and Environmental Engineering and Materials Science and Engineering

Elizabeth Holm

Professor, Department of Materials Science and Engineering

Annette M. Jacobson

Associate Dean

Diana Marculescu

David Edward Schramm Professor of Electrical and Computer Engineering

Sathir Singh

Assistant Teaching Professor, Department of Mechanical Engineering

Bryan Webler

Associate Professor, Department of Materials Science and Engineering

Conrad Zapanta

Associate Head of Undergraduate Education; Teaching Professor, Department of Biomedical Engineering

College of Fine Arts

Rob Handel

Associate Professor, Dramatic Writing, School of Drama

Peter Scupelli

Associate Professor, Chair of the Environments Track and Director of the Learning Environments Lab, School of Design

Dietrich College of Humanities and Social Sciences

Joseph Devine

Associate Dean for Undergraduate Studies

Jennifer Keating

Assistant Dean for Educational Initiatives

Christopher Peter Makris

Executive Director, Master's of Statistical Practice Program; Adjunct Instructor

Mark Patterson

Director, Quantitative Social Science Scholars Program

Kristina Straub

Professor, Department of English

Heinz College of Information Systems and Public Policy

Rebekah Apple

Director of the Master of Medical Management Program

Sean Beggs

Director of the Master of Information Systems Management Program

Mellon College of Science

Maggie Braun

Associate Dean for Undergraduate Affairs; Associate Teaching Professor

Kenneth Hovis

Assistant Dean for Educational Initiatives; Associate Teaching Professor

Jonathan Minden

Professor, Department of Biological Sciences

Manfred Paulini

Professor of Physics; Associate Dean for Faculty and Graduate Affairs

School of Computer Science

Guy E. Blelloch

Associate Dean of Undergraduate Programs

Thomas J. Cortina

Assistant Dean for Undergraduate Education; Teaching Professor

David Garlan

Associate Dean for Master's Programs; Professor of Computer Science

Tepper School of Business

Wendy Hermann

Executive Director, Student Services, Master's Program

Burton Hollifield

Academic Head, Undergraduate Business Administration Program; PNC Professor of Financial Economics

Jennifer Wegner

Executive Director, Undergraduate Business Administration Program

BXA Intercollege Degree Programs

M. Stephanie Murray

Director; Academic Advisor; Assistant Teaching Professor

Science and Humanities Scholars

William Alba

Assistant Dean for Diversity, Mellon College of Science; Director, Science and Humanities Scholars Program; Associate Teaching Professor of Chemistry



Follow the conversation: #cmugrad

Academic Symbols

THE CARNEGIE MACE

In the British tradition, a procession for a ceremony such as this commencement may be led by an official bearing a mace or staff, or supervised by a marshal carrying a baton or other badge of office. Carnegie Mellon has provided the faculty marshal (officially responsible for the entire ceremony) with a silver mace. The Carnegie mace is surmounted with a thistle, a flowering plant, symbolic of Andrew Carnegie's Scottish origin.

REGALIA

Other components of this ceremony include the regalia of the participating faculty and students — a colorful relic of medieval scholastic tradition. During the Middle Ages, education was a function of religious organizations. The long gown evolved from the monk's habit, and the hood from the cowl that monks wore on their heads.

The hoods are decorated with colored velvet bands indicating the disciplines in which they earned their degree. Carnegie Mellon hoods are dressed with the Carnegie family tartan in blue, red, green and yellow, created at Andrew Carnegie's request and manufactured in Scotland.

Candidates for the master's degree wear a velvet band of the color representing their particular academic discipline on their hoods. The colors representing the academic disciplines for the master's degrees awarded by Carnegie Mellon are as follows:

College of Engineering | *Orange*

College of Fine Arts | *Dark Brown*

Music | *Pink*

Dietrich College of Humanities and Social Sciences | *White*

Statistics and Data Science | *Gold*

Heinz College of Information Systems and Public Policy:

Information Systems | *Yellow*

Public Policy | *Peacock Blue*

Mellon College of Science | *Gold*

School of Computer Science | *Gold*

Tepper School of Business | *Drab Brown*

University-Wide, Intercollege and Joint-Degree Programs
| *Various Colors*

The colors representing the academic disciplines for the doctor's degrees awarded by Carnegie Mellon are as follows:

Doctor of Arts | *White*

Doctor of Design | *Dark Brown*

Doctor of Philosophy | *Dark Blue*

Doctor of Professional Practice | *Dark Brown*

MORTARBOARD AND TASSEL

Some legends say the mortarboard developed from the skull caps worn by churchmen officiating at religious services; others say the cap resembles a scholar's book and came from Oxford University.

The tassel, worn on the square of the mortarboard, developed from the 15th century when caps and hats came into fashion. One style of hat bore a tuft in the center, which evolved into the tassel. Students receiving a bachelor's degree have a red tassel, master's degree candidates have a black tassel and those receiving a doctor's degree have a gold tassel. The tassels hold an emblem stating the year of graduation.

THE PRESIDENT'S MEDALLION AND CHAIN

In holding with ceremonial tradition, the president will wear the chain of office and medallion. These brass pieces have been designed to be passed down from president to president, bridging our past and present to our promising future.

A medallion bearing the university seal anchors the 36-inch ornamental chain. Adorning the piece are four medals, two engraved with the thistle and two featuring images of our founders Andrew Carnegie and Andrew Mellon.

The links of the chain are interwoven with 12 curved banners engraved with the names of each of the colleges and schools within the university, the University Libraries and Carnegie Mellon's campus locations around the world. This symbol of our interconnected community meets at the "president's banner." Marked by a decorative accent, this banner sits above the medallion and features Carnegie's famous motto, "My heart is in the work."

University and College Honors

Bachelor's candidates who have achieved exemplary academic success receive university and/or college honors. Below is a description of the criteria for the honors. Students may achieve university and/or college honors by their seventh or eighth semester. Because of printing deadlines, only those who have achieved honors as of their seventh semester are listed in this program.

- ◆ **University Honors** are given to undergraduates on the basis of a 3.5 or higher quality point average (QPA). These students are identified by a medallion worn as part of their academic regalia.
- ◆ **College Honors** are awarded individually by each college. These students are identified by a cord worn as part of their academic regalia. The criteria for each college are outlined below.
- ◆ **University and College Honors**

BXA INTERCOLLEGE DEGREE PROGRAMS

Bachelor of Computer Science and Arts (BCSA), Bachelor of Humanities and Arts (BHA), Bachelor of Science and Arts (BSA) and Engineering and Arts (EA) additional major students who successfully complete a BXA Capstone Project under the guidance of a faculty member, present their research results at the annual Meeting of the Minds Undergraduate Research Symposium and earn an overall QPA of 3.25 or higher will receive BCSA Intercollege Honors, BHA Intercollege Honors, BSA Intercollege Honors or EA Intercollege Honors.

The BCSA honors cord colors are tiffany gold and dark brown. The BHA honors cord colors are purple and dark brown. The BSA honors cord colors are gold and dark brown. The EA honors cord colors are orange and dark brown.

COLLEGE OF ENGINEERING

The College of Engineering College Honors recipients complete at least 18 units of advanced level research

during their senior year under the guidance of a Carnegie Mellon faculty member. They present and discuss their research project at the undergraduate research symposium held annually in the spring.

The Engineering honors cord color is orange.

COLLEGE OF FINE ARTS

The College of Fine Arts (CFA) issues College Honors based on the following school criteria:

Architecture – students who have a cumulative QPA of 3.3 or higher.

Art – students who have won a School of Art award or whom faculty select based on overall academic and artistic excellence.

Design – students who have won a School of Design award.

Drama – students who have a cumulative QPA of 3.3 or higher. The faculty may also select additional students based on overall academic and artistic excellence, school citizenship, innovative thinking and/or entrepreneurship.

Music – students who have a cumulative QPA of 3.3 or higher, and *either* have won a School of Music award *or* have been awarded College Honors by the School of Music Division Heads Committee.

CFA Student-Defined Majors – students may receive College Honors if they have a cumulative QPA of 3.3 and have also completed one of the following: 1) senior project, 2) internship, 3) independent study where work is used, cited or has a direct impact on the university or society at large.

The CFA honors cord color is dark brown.

DIETRICH COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Students who complete a Dietrich College of Humanities and Social Sciences (DC) senior honors thesis under the auspices of the Dietrich College

Senior Honors Program receive Dietrich College Honors.

The DC honors cord color is purple.

MELLON COLLEGE OF SCIENCE

Mellon College of Science (MCS) students are awarded MCS College Honors if they maintain a QPA of 3.2 or higher, demonstrate quality undergraduate research and either publish or present their research at a scientific meeting.

The MCS honors cord color is gold.

SCHOOL OF COMPUTER SCIENCE

The School of Computer Science (SCS) students complete a senior research thesis under the guidance of a faculty member. The students present their research results at the SCS Fall Research Poster Presentation and the annual Meeting of the Minds Undergraduate Research Symposium. Posters describing their thesis research are displayed in the Gates & Hillman Centers.

The SCS honors cord color is tiffany gold.

SCIENCE AND HUMANITIES SCHOLARS

Science and Humanities Scholars (SHS) students may receive either MCS or DC Honors.

TEPPER SCHOOL OF BUSINESS

Students in Business Administration earn College Honors from the Tepper School of Business (TPR) by successfully completing a year-long senior research thesis under the guidance of a faculty advisor. Students present their research results at the annual Meeting of the Minds Undergraduate Research Symposium.

The TPR honors cord color is drab brown.



Speakers



PRESIDENT

FARNAM JAHANIAN

Henry L. Hillman President's Chair

Farnam Jahanian was appointed the 10th president of Carnegie Mellon University by its Board of Trustees in March 2018.

A nationally recognized computer scientist, entrepreneur, public servant and higher education leader, Jahanian brings to CMU extensive leadership and administrative expertise, not only in advancing research and education within and across disciplines, but also in translating research into technologies and practices that benefit society.

He was previously the university's provost and chief academic officer, with broad responsibility for leading CMU's schools, colleges, institutes and campuses. He first joined CMU in 2014 as vice president for research.

Before coming to CMU, Jahanian led the National Science Foundation Directorate for Computer and Information Science and Engineering (CISE) from 2011 to 2014. He guided CISE in its mission to advance scientific discovery and engineering innovation through its support of fundamental research. Previously, Jahanian was the Edward S. Davidson Collegiate Professor at the University of Michigan, where he served as chair for Computer Science and Engineering from 2007 to 2011 and as director of the Software Systems Laboratory from 1997 to 2000.

Jahanian has been an active advocate for how basic research can be uniquely central to an innovation ecosystem that drives global competitiveness. His scholarly work in cybersecurity and networks ultimately transformed how cyber threats are addressed today and formed the basis for the internet security company Arbor Networks, which he co-founded in 2001 and served as chairman until its acquisition in 2010.

Jahanian serves as chair of the National Research Council's Computer Science and Telecommunications Board, is on the executive committee of the Council on Competitiveness and is a board member of the National Center for Women and Information Technology, among other organizations.

Jahanian holds a Ph.D. in computer science from the University of Texas at Austin. He is a fellow of the Association for Computing Machinery, the Institute of Electrical and Electronic Engineers and the American Association for the Advancement of Science.



PROVOST AND CHIEF ACADEMIC OFFICER

JAMES H. GARRETT JR. (E 1982, 1983, 1986)

Thomas Lord Professor of Civil and Environmental Engineering

James H. Garrett Jr. was named provost and chief academic officer of Carnegie Mellon University in January 2019.

As the university's chief academic officer, Garrett is responsible for leading CMU's schools, colleges, institutes and campuses and is instrumental in institutional and academic planning and implementation.

A member of the faculty since 1990, Garrett became dean of Carnegie Mellon University's College of Engineering in 2013. Immediately prior to that, he spent six years as head of the Department of Civil and Environmental Engineering.

Garrett is Carnegie Mellon plaid through and through, having received his B.S. (1982), M.S. (1983) and Ph.D. (1986) degrees in Civil and Environmental Engineering from the institution. He joined the faculty of the college as an assistant professor in 1990 and was promoted to full professor in 1996. Garrett has served in other administrative roles including associate dean for Graduate and Faculty Affairs (2000–2006) and acting dean (2004), as well as faculty co-director of the Smart Infrastructure Institute, a research center aimed at developing sensing technology for construction and infrastructure systems.

Throughout his research career, Garrett focused on how sensors and data analytics can make our cities more adaptive and efficient. This approach aims to give built infrastructures the ability to detect and report on problems directly to the humans charged with maintaining those structures, allowing for more proactive and cost-effective infrastructure management.

Among his many recognitions and awards, in 2018 Garrett was awarded the title of Distinguished Member of American Society of Civil Engineers, the highest honor available to civil engineers.



**CHAIR,
BOARD OF TRUSTEES**

JAMES E. ROHR

Retired Executive Chairman,
The PNC Financial Services Group

James E. Rohr is the retired executive chairman and former chief executive officer of The PNC Financial Services Group, one of the largest diversified financial services companies in the United States.

Rohr joined PNC's management development program in 1972. Over more than 40 years with the company, he has held a variety of leadership positions, including vice chairman, director and chief operating officer. During his time as CEO, the company grew assets four-fold and engaged in 10 acquisitions, including the integrations of National City and the retail branch network of RBC Bank (USA). For his leadership, Rohr was named American Banker's "Banker of the Year" for 2007. He stepped down as chief executive officer in April 2013 and retired as executive chairman in April 2014.

Rohr is a director of ATI, ECHO Realty, EQT Corporation and Marathon Petroleum Corporation. He is past chair of the Financial Services Roundtable, past president of the Federal Advisory Council of the Federal Reserve System and the Pennsylvania Business Roundtable and former director of BlackRock, Inc., the Federal Reserve Bank of Cleveland, GE and Second Curve Capital.

As chairman of PNC, Rohr provided the vision for PNC Grow Up Great, the company's \$500 million, multiyear, bilingual initiative that began in 2004 to support early childhood education. To promote it, he presented to national organizations, testified before Congress about the importance of preparing children for school, and called for universal access to early childhood education programming. PNC was recognized with the Excellence in Corporate Philanthropy Award by the Committee Encouraging Corporate Philanthropy for this initiative.

Rohr supports a number of civic, cultural and educational organizations. He serves on the boards of directors for The Heinz Endowments, the Allegheny Foundation and the Dietrich Foundation; is chairman of the board of trustees of Carnegie Mellon University and a member of the board of trustees of the University of Notre Dame; is past chairman and a member of the Pittsburgh Cultural Trust; and is past chairman of the Allegheny Conference on Community Development.

Rohr earned his bachelor of arts degree from the University of Notre Dame and his master's in business administration from The Ohio State University.



**ALUMNI ASSOCIATION
BOARD PRESIDENT**

**ALEX DICLAUDIO
(DC 2009, HNZ 2011)**

Managing Director and Co-Founder
of Bedford Funds LP

Alex DiClaudio, an interdisciplinary business leader and entrepreneur, is in his first year as president of the Carnegie Mellon Alumni Association.

DiClaudio earned his bachelor's degree in economics from the Dietrich College of Humanities and Social Sciences and Tepper School of Business in 2009, and a master's degree in arts management from the Heinz College of Information Systems and Public Policy in 2011. Since then his career has spanned Broadway, film, television and the web to private equity and a series of startups.

His credits in the entertainment industry include the Broadway premiere of *Grace*, the Starz original series *The Chair* and the popular webseries *Pittsburgh Dad*. His business ventures include his current role as president and CEO of HiUp Enterprises North America, a subsidiary of an Ireland-based international digital media and technology company focused on cutting-edge corporate and industrial safety and compliance training, with operations based at the Energy Innovation Center in Pittsburgh.

DiClaudio is a founding partner of Bedford Funds LP, a Pittsburgh-based, national-scope opportunity zone fund that is taking an innovative approach to driving transformative change in economically distressed neighborhoods. Bedford is pursuing a unique strategy in this new asset class, with the goal of jointly creating value and strong returns for investors while seeding unprecedented sustainable growth in and for historically "left behind" neighborhoods. This strategy seeks to create innovation ecosystems supported by cutting-edge energy generation and technology, and a robust workforce development program, to positively and inclusively drive rejuvenation and transformation of opportunity zones.

In addition to his volunteer role as leader of the Carnegie Mellon alumni community, DiClaudio dedicates much of his free time to supporting public education, specifically as an elected member of the board of education of his alma mater, Riverview School District in Oakmont and Verona, Pennsylvania.



Follow the conversation: #cmugrad

Speakers



KEYNOTE SPEAKER AND HONORARY DEGREE RECIPIENT

**LESLIE ODOM, JR.
(A 2003)**

Tony and Grammy Award-Winning
Performer

Doctor of Fine Arts

Leslie Odom, Jr. is a Tony and Grammy Award-winning actor, singer and dancer.

Best known for his breakout role as Aaron Burr in the smash hit Broadway musical, "Hamilton," Odom received a Drama Desk Award nomination in 2015 and won the Tony Award for Best Actor in a Musical. He also won a Grammy Award as a principal soloist on the original cast recording.

Odom made his Broadway debut in "Rent" and starred in the stage adaption of "Leap of Faith." Off-Broadway he appeared in "Venice" at the Public Theater. On television, Odom will star in and executive produce a new ABC pilot with Simpson Street and Kerry Washington about joint pastors at a young, hip, diverse church in L.A. He most recently appeared on the big screen in Kenneth Branagh's "Murder on the Orient Express" for Twentieth Century Fox and recently completed production on four feature films.

Odom returned to the New York City stage in a solo concert at Jazz at Lincoln Center in 2017. The cabaret-style performance was crafted around signature songs and music that shaped the artist's journey and was performed with a world-class band in front of a live audience. The show was filmed for broadcast as an hour-long PBS special as part of the 17-time Emmy Award-winning series, "Live from Lincoln Center."

Odom's self-titled debut album was released in 2014 by Borderlight Entertainment. The album's re-release in 2016 with additional material charted at #1 on the Billboard Jazz chart.

Odom is the author of *Failing Up: How to Take Risks, Aim Higher, and Never Stop Learning*, a book that taps into the universal themes of starting something new, following your passions, discovering your own potential and surrounding yourself with the right people.



STUDENT SPEAKER

**HAMZA QURESHI
(A 2019)**

Hamza Qureshi is graduating with a bachelor of arts degree in architecture with an additional major in Human-Computer Interaction.

Qureshi has been a member of the Carnegie Mellon University community since 2014 when he attended the Pre-College program. Since arriving as an undergraduate student in the fall of 2015, he has been a dedicated and engaged student in his academic and extracurricular pursuits.

In addition to being a member of the College of Fine Arts' Dean's List, Qureshi has served on the School of Architecture's Student Advisory Council, has been an academic coach with Carnegie Mellon Academic Development and has worked as a teaching assistant. He has participated in research in the areas of fabrication design, augmented reality, and more recently, human-robot virtuosity with the DARPA Subterranean Challenge, working with his team to design and develop a user interface to carry out complex search-and-rescue missions.

Qureshi has worked tirelessly over his time at Carnegie Mellon to help incubate a campus culture that is inclusive for all. His leadership roles have included serving as an orientation leader, a member of the Undergraduate Student Senate and as a Booth chair and an outreach chair for the Phi Delta Theta fraternity. He also has offered a student perspective on a variety of issues through his service on executive committees focused on campus development and health and wellness. As a Coulter Welcome Center ambassador, Qureshi has been able to share his Carnegie Mellon experience with visitors from around the world.

Upon graduation, Qureshi will be working as a user experience designer in a two-year rotational program at Capital One in the Washington, D.C., area.

Honorary Degree Recipients



DARLENE CLARK HINE

John A. Hannah Distinguished
Professor of History, Michigan
State University

Doctor of Humane Letters

Darlene Clark Hine is a leading historian of the African American experience who helped found the field of black women's history and has been one of its most prolific scholars.

Hine is a National Women's History Month Honoree. On July 28, 2014, President Barack Obama honored her with a National Humanities Medal for her contributions in black women's history and pioneering study of the intersection of race, class and gender. She is past president of the Organization of American Historians and of the Southern Historical Association. She was inducted into the American Academy of Arts and Sciences in October 2006.

In 1987, Hine became the John A. Hannah Distinguished Professor of American History at Michigan State University where she established the Comparative Black History Ph.D. Program and mentored over 20 Ph.D. graduate students. She is the Board of Trustees Professor of African American Studies and History Emerita (Northwestern University). Her numerous publications include *Black Victory: The Rise and Fall of the White Primary in Texas* (1979, second edition, 2003); *Black Women in White: Racial Conflict and Cooperation in the Nursing Profession, 1890–1950* (1989); *Black Women in America: An Historical Encyclopedia* (1993); and *Hine Sight: Black Women and the Re-Construction of American History* (1994).

Hine has received fellowships and grants from the American Council of Learned Societies, the Center for Advanced Study in the Behavioral Sciences, the Ford Foundation, the National Endowment for the Humanities, the National Humanities Center, the Radcliffe Institute for Advanced Study, the Rockefeller Foundation, and was a W.E.B. DuBois Institute Fellow at Harvard University. She has received honorary doctorates from the University of Massachusetts, Amherst; Purdue University; Buffalo State College, Buffalo, New York; Lake Forest College, Lake Forest, Illinois; Roosevelt University; and Michigan State University.



DAVID M. KELLEY (E 1973)

Donald W. Whittier Professor
in Mechanical Engineering,
Stanford University

Founder, Hasso Plattner Institute
of Design, Stanford University

Founder, IDEO

Doctor of Science and Technology

David Kelley is the founder of the global design and innovation company IDEO and Stanford University's Hasso Plattner Institute of Design (commonly referred to as the d.school).

After earning a bachelor's degree in electrical engineering at Carnegie Mellon University, Kelley worked as an engineer at Boeing and NCR. He entered Stanford University in 1975 where he earned his master's degree in engineering/product design.

In 1978, he founded the design firm that would become IDEO. In that same year, he began his teaching career at Stanford, receiving tenure in 1990. He also founded an early-stage venture-capital firm in 1984 called Onset and was instrumental in starting a special effects firm called Edge Innovations, which creates unique animatronics for the film industry.

Kelley was inducted into the National Academy of Engineering in 2000. He holds honorary Ph.D.s from the Thayer School of Engineering at Dartmouth and the Art Center College in Pasadena. He has been recognized with numerous honors, including the Chrysler Design Award and the National Design Award in Product Design from the Smithsonian's Cooper-Hewitt National Design Museum, the Robert Fletcher Award from Dartmouth and the Edison Achievement Award for Innovation. Preparing the design thinkers of tomorrow earned him the Sir Misha Black Medal for his "distinguished contribution to design education."

As Stanford's Donald W. Whittier Professor in Mechanical Engineering, Kelley is the academic director of both degree-granting undergraduate and graduate programs in design within the School of Engineering and has taught classes in the program for more than 35 years.

Kelley's most enduring contributions are in human-centered design methodology and design thinking. He is most passionate about using design to help unlock creative confidence in everyone from students to business executives. A frequent speaker on these topics, Kelley and his brother co-authored the New York Times best-selling book, *Creative Confidence: Unleashing the Creative Potential Within Us All*.



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Honorary Degree Recipients



**JOHN SHAFFNER
(A 1976) AND
JOE STEWART
(A 1977)**

Emmy Award-Winning
Production Designers,
Shaffner/Stewart
Production Design
Doctor of Fine Arts

John Shaffner and Joe Stewart are among the most recognized and prolific production designers in television today and have left an indelible mark on television's history.

Shaffner and Stewart have designed programs that span the genres of multi-camera entertainment: sitcoms, talk shows, cooking shows, telethons, game shows, awards shows, specials, music/variety, televised events and live theatrical productions.

They first made their mark on television with the designs for "Star Search," which Shaffner also named, and 10 specials for David Copperfield. Some of their most memorable work includes their production designs for the landmark comedies "The Big Bang Theory," "Friends" and "Two and a Half Men."

In variety, they have worked with entertainment's biggest stars including Jerry Lewis, Michael Bubl , Diana Ross, Barbra Streisand, Harry Connick, Celine Dion, Kenny Rogers, Dolly Parton, Carol Burnett and Whitney Houston. Annually, a number of awards shows as well as the Miss USA and Miss Universe pageants and Dick Clark's New Year's Rockin' Eve benefit from their talents. They have designed four Republican National Conventions and several editions of the Ringling Bros. and Barnum & Bailey Circus.

Shaffner and Stewart have together and separately received 39 Primetime and Daytime Emmy Award nominations and won six Emmy Awards: three for David Copperfield specials, two for "The Ellen DeGeneres Show" and one for the sitcom "George Lopez." They also have received 33 Art Directors Guild nominations and won Art Directors Guild Awards for their designs of the 2006 Emmy Awards and "The Big Bang Theory."

Shaffner served as chairman of the Television Academy and of the Art Directors Council at the Art Directors Guild. Stewart served on the board of governors of the Television Academy.

Stewart holds a bachelor of fine arts degree from Carnegie Mellon and an honorary doctor of arts degree from the University of Louisiana. Shaffner received his bachelor of fine arts degree from the University of Montana and his master of fine arts degree from Carnegie Mellon.

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Tallman Ladd and Florence
Barrett Ladd Professor of
Mechanical Engineering

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Public Policy and William W.
and Ruth F. Cooper Professor
of Management Science and
Information Systems

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and Director of Emerging and
Integrative Media Initiatives

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Dena Haritos Tsamitis, Director of the Institute

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Allen Robinson, Head of the Department

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Vijayakumar Bhagavatula, Director of CMU-Africa

CARNEGIE MELLON UNIVERSITY IN SILICON VALLEY

Steven Rosenberg, Senior Director of Operations

STUDENT-DEFINED MAJORS

Annette Jacobson, Associate Dean

BIOMEDICAL ENGINEERING

BACHELOR OF SCIENCE

The department offers an additional major B.S. degree with each of the five traditional engineering departments. Accordingly, our students are listed within their traditional departments.

MASTER OF SCIENCE

Biomedical Engineering

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Parul Chauhan *
Siyu Chen
Minrui Feng
Yile Feng **
Gregory Cyrus Ghahramani
Qiman Guan **
Conway Chih-Hung Hsieh
Justin Hsu
Brent I. Ifemembi
Kaushik Jagadish Iyer
Michael Jacobson **
Chanel Jhin
Ishmael Johnson-Bey
Molly S. Kaissar
Tianai Kong **
Rishii Nandhan Konganapuram

Lavanya Krishna **

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Mushi Li

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Ashwin Panda

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Amy A. Powers

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Michaela Marie Staats *

Jennifer Tsai **

Kelu Wu **

Heran Yu

Han Zhang

Tianning Zhang **

Zuyi Zhang **

Shiyuan Zheng

DOCTOR OF PHILOSOPHY

Qinle Ba **

Quantitative Modeling and Analysis
of the Whole-Cell Scale Dynamic
Organization of Lysosomes
Advisor(s): Ge Yang

Elaine Soohoo

Design and Development of a
Torsional Ventricular Assist Device
Advisor(s): Dennis Trumble

Rei Ukita **

Artificial Lung as Destination
Therapy: In-Vitro and In-Vivo
Evaluation of Low-Fouling Surface
Coatings and Computational
Modeling of Microchannel Lung
Advisor(s): Keith Cook

Biomedical Engineering and Engineering and Public Policy

Sara Abdollahi *

Soft Material 3D Printing Toward Patient-
Specific Wearable Medical Devices
Advisor(s): Alexander Davis,
Adam W. Feinberg

ENGINEERING INTERDISCIPLINARY

MASTER OF SCIENCE

Energy Science, Technology and Policy

K'yal Rasean Bannister

Nalin Buntongmai

Pablo Christian Caulier Salinas **

Shefali Rai

Gayatri Avinash Shahane

Madalsa Singh

Ariel Marie Stolz

Merril Julia Stypula

Energy Science, Technology and Policy (Applied Studies)

Lucia Alvarez Yates **
 Pragya Chauhan **
 Spandan Nikhil Gandhi **
 Ziyang Han **
 Meghana Kavakuntala **
 Ye Li **
 Chen Ling **
 Ritu Treisa Philip **
 Ishan Saraswat **
 Idoan Marciano Mula Tua **
 Yian Wang **

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 Elizabeth Alexander
 Abhinay Bhagat
 Kalhan Bhan
 Daniel Oded Bregman
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 Sidharth Srikumar
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 Minor: Biomedical Engineering
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 Additional Major: Philosophy
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- Yugesh Ramsaroop
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- Shinjini Ray
 Additional Major: Biomedical Engineering
- Evelyn Reuss
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 Minor: Environmental Studies
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 Sophia Wang
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CHEMICAL ENGINEERING

BACHELOR OF SCIENCE

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Gabrielle S.D. Yanai
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and Public Policy
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MASTER OF CHEMICAL ENGINEERING

Chemical Engineering

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Sicong Liu
Alexander A. Noring
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Michelle K. Smyk
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Mengxi Yang

MASTER OF CHEMICAL ENGINEERING & COLLOIDS, POLYMERS AND SURFACES

Chemical Engineering and Colloids, Polymers and Surfaces

Rohan P. Reddy **

MASTER OF SCIENCE

Chemical Engineering

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Sijie Xian **
Xin Zhang **
Hanqin Zhao **

Colloids, Polymers and Surfaces

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Qin Gu
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Alicia Ng **
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DOCTOR OF PHILOSOPHY

Braulio Brunaud
Models and Algorithms for Multilevel
Supply Chain Optimization
Advisor(s): Ignacio Grossmann

Soham Dutta *
Enantiomer Chemistry on Chiral
Surfaces: Amino Acids on Copper
Advisor(s): Andrew J. Gellman

Randall Lee Gamble Jr. **
Gel-Free DNA Sequencing Using
Transiently Attached Surfactant Micelles
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Devin Wade Griffith *
Advances in Nonlinear Model
Predictive Control for Large-Scale
Chemical Process Systems
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Khalid Hajj
Lipid Nanoparticle Systems for the
Delivery of Messenger RNA
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Interfacial Activity of Star
Polymers at Fluid Interfaces
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Steven Vincent Isella
Surfactant Driven Pulmonary
Drug Delivery
Advisor(s): Stephen Garoff,
Todd M. Przybycien, Robert D. Tilton

Burcu Karagoz
Structure Sensitivity of Enantioselective
Surface Chemistry on Cu(hkl) Surfaces
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Nicholas G. Lamson
Increasing Permeability of the
Intestinal Epithelium to Enable
Oral Delivery of Protein Drugs
Advisor(s): Kathryn A. Whitehead

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Robust Optimization for Scheduling
Operations Under Uncertainty
Advisor(s): Chrysanthos E. Gounaris

Cristiana L. Lara
Decomposition Algorithms for
Optimal Manufacturing and Power
Systems Infrastructure Planning
Advisor(s): Ignacio Grossmann

Anirudh Subramanyam **
Robust Optimization of Vehicle Routing
Problems Under Uncertainty
Advisor(s): Chrysanthos E. Gounaris

Yajun Wang
Modeling, Estimation and Optimal
Control of Batch Reactors Under
Parameter Uncertainty
Advisor(s): Lorenz T. Biegler

Zachary Todd Wilson
Integer Programming Applications
in Data Driven Modeling
Advisor(s): Nikolaos Sahinidis

Zixi Zhao *
Passivity-Based Adaptive Control of
Chemical Reactions in the Absence
of Reaction Kinetics Information
Advisor(s): B. Erik Ydstie

CIVIL & ENVIRONMENTAL ENGINEERING

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MASTER OF SCIENCE

Advanced Infrastructure Systems

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Yiyi Xiang **
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Qianhan Zhang **
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Yang Zhao
Yifan Zhao
Wanduo Zheng **
Chiheng Zhou **
He Zhou **
Xingyu Zhu *
Chong Zuo **

Computational Mechanics

Yuanhao Li
Suman Pokharel **
Nihar Turumella **

Environmental Engineering

Preom C. Sarkar

Environmental Management and Science

Yang Lu **

DOCTOR OF PHILOSOPHY

Rajat Arora
Computational Approximation
of Mesoscale Field Dislocation
Mechanics at Finite Deformation
Advisor(s): Amit Acharya

Jonathan Charles Callura **
Ligand-Functionalized Adsorbents
for the Extraction and Recovery
of Rare Earth Elements
Advisor(s): David A. Dzombak,
Athanasios Karamalidis

Lauren Cook **
Using Climate Change Projections to
Increase the Resilience of Stormwater
Infrastructure Designs Under Uncertainty
Advisor(s): Constantine Samaras,
Jeanne VanBriesen

Arnab Debnath **
Numerical Solution of the Non-
equilibrium Boltzmann Equation
using the Discontinuous Galerkin
Finite Element Method
Advisor(s): Kaushik Dayal

Kerim Edward Dickson **
Interbasin Transfers and Water
Risk in the United States
Advisor(s): David A. Dzombak

Kelly Donmoyer Good **
Coal-Fired Power Plant Wastewater
Contributions to Bromide Concentrations
in Drinking Water Sources
Advisor(s): Jeanne VanBriesen

Chelsea Kolb **
Drinking Water Quality and Risk
Challenges from Increasing Source Water
Bromide: Climate and Energy Changes
Advisor(s): Matteo Pozzi,
Constantine Samaras, Jeanne VanBriesen

Henning Lange

Advanced Infrastructure Systems
Variational Methods for Energy Systems
Advisor(s): Mario Berges

Xuechen Lei

Systematic Control Logic Fault
Identification and Localization of Heating,
Ventilation and Air Conditioning Systems
Advisor(s): Burcu Akinci, Mario Berges

Greg A. Schivley **

Environmental Implications
of Energy Transitions
Advisor(s): Constantine Samaras

Sneha Shashikant Shanbhag

Electrode Material Functionality and
Efficiency in Electrochemical Deionization
Advisor(s): Meagan Mauter

Eleanor Ruth Spielman-Sun

Understanding the Impact of Charge
and Solubility on Nanoparticle Uptake
and Transformations in Planta Through
Spatially Resolved Chemical Speciation
Advisor(s): Gregory V. Lowry

Irem Velibeyoglu **

Model Identification and Fault
Detectability Assessment for Air
Handling Units: Statistical Methods
and Empirical Validation
Advisor(s): Matteo Pozzi

**Civil and Environmental Engineering
and Engineering and Public Policy****Xuejiao Zhang ***

Evaluating Indirect GHG Emissions
in Biofuel and Implications for
Renewable Energy Policies
Advisor(s): W. Michael Griffin,
Mitchell J. Small

**ELECTRICAL & COMPUTER
ENGINEERING****BACHELOR OF SCIENCE****Electrical and Computer
Engineering**

John Tyler Acheron

Evan J. Adkins *

Cyril Agbi

Justin YongJin Ahn

◆ Sooyoung Ahn

Omar Alhait

◆ Manini P. Amin

Minor: Computer Science

Sean J. Anderson

Additional Major: Engineering
and Public Policy

Vayum Arora

Minor: Business Administration

Brian R. Bakerman

◆ Ronit Banerjee

◆ David Bang

Kristina Banh

◆ Pallavi Bannai **

◆ Christopher Brennan Bayley
Minor: Computer Science

Ajay Benno

◆ Aayush Bhasin **

Umang S. Bhatt

◆ Aayush Bhutani **

Minor: Computer Science

Ilan Biala

Nikhil R. Birmiwai **

Additional Major: Computer Science

Ethan Bless-Wint

Ryan P. Brigden

◆ Eric Y. Chang

Minor: Computer Science

◆ Michael A. Chang **

Minor: Computer Science

◆ Wenting T. Chang

Minor: Business Administration

◆ Bobbie Chen

Minor: Audio Engineering

◆ Junye Chen

Minor: Machine Learning

Lily Y. Chen

Minor: Music Technology

Minor: Philosophy

Mingquan Chen

Minor: Computer Science

◆ Tianbo Chen

Weiqiao Chen

Additional Major: Computer Science

◆ Celine S. Cheng **

Tushar Chetal

Suann Chi

Additional Major: Biomedical Engineering

Tiffany Chiang

Additional Major: Robotics

◆ Wai Sing Ching

Minor: Music Technology

Minor: Politics and Public Policy

◆ Cornelia P. Chow

◆ Bangyan Chu

Evan B. Compton

Minor: Computer Science

Karn Dalmia

◆ Jack E. Dangremond

◆ Brian M. Davis

Charlotte Deiss

Omar R. Delen

Additional Major: Computer Science

◆ Kevin Michael Devincintis

◆ Anyi Diao

Additional Major: Human-

Computer Interaction

Minor: Computer Science

David Y. Diao

Minor: Computer Science

◆ Dalu Ding

Minor: Computer Science

Kevan Dodhia

Haocheng Dong **

Minor: Computer Science

Jens A. Ertman

Sam R. Fazel-Sarjui

Yupeng Feng **

Additional Major: Human-
Computer Interaction
Minor: Design

◆ Angela F. Gao **

Additional Major: Biomedical Engineering

Kashish Garg

Minor: Computer Science

◆ Nakul Garg

Leroy J. Gary

◆ Shreyas Gatuku **

Minor: Robotics

Pierre Germa

Additional Major: Biomedical Engineering

◆ Evan J. Glaser **

Neeraj A. Godbole

Zhiqi Gong

◆ Manu Gopakumar

◆ Alexander Dean Gotsis

David A. Gronlund

◆ Zilei Gu **

James A. Gualtieri

◆ Raunak Sanjay Gupta

Additional Major: Computer Science

Scott F. Hamal

David E. Hanna

◆ Stephen He

Additional Major: Computer Science

◆ Caroline J. Hermans **

Additional Major: Engineering and Art

Minor: Media Design

Arman Hezarkhani

◆ Nolan Hiehle

Tianhan Hu

Minor: Computer Science

◆ Sheng-Hao Huang

◆ Ze Ming Benjamin Huang

Additional Major: Computer Science

Sue Jeong Hur **

◆ Ji Yeon Hwang

Minor: Computer Science

Surbhi Inani

Isha Iyer

Minor: Animation and Special Effects

Akshat Jain

Arihant Jain

Karen A. Johnson

◆ Maxwell S. Johnson

Minor: Computer Science

Anja Kalaba

Additional Major: Physics

Kanupriyaa Kanupriyaa

Matthew J. Kasper

Minor: Computer Science

Dhruva Kaushal

Robert A. Keller **

Theodore E. Kern **

Riki Singh Khorana

Munsung Kim **

Minor: Business Administration

- ◆ Samuel Kim
- ◆ Young Chan Kim
Additional Major: Computer Science
- Indu Nhalil Korambath
Additional Major: Engineering and Public Policy
- Kyle Kozlowski
- Edric Harrison Kusuma
- Aaron Ephraim Landau **
- Siddhanth Lathar
- Michaela G. Laurencin
- ◆ Chung Seob Lee
- Ryan N. Lee
- Theodore C. Lee
- ◆ John N. Lenney
- ◆ Nathan M. Levin
- Ai Li **
- ◆ Charles Li
Additional Major: Engineering and Public Policy
- ◆ Jessie W. Li
Minor: Computer Science
- ◆ Siliang Li
Minor: Computer Science
- ◆ Tianqi (Roy) Li
Minor: Computer Science
- ◆ Kimberly Jinxia Lim
- ◆ Irene Lin
- ◆ Hailang Liou
- ◆ Ruixuan Liu
Minor: Robotics
- Xinna Liu
- Matteo J. Longo
- ◆ Zixu Lu
- ◆ Charlie W. Ma **
- ◆ Yuqing Ma **
- ◆ Cameron A. Mackintosh
- Sasikala Mani
Minor: Business Administration
- Minor: Computer Science
- Alisha Mayor
- Mark N. McKinzie
- Tanushree Mediratta
- Rajat Mehndiratta
- Eric T. Mendez
Minor: Audio Engineering
- Adriel J. Mendoza
- Allison F. Meyer
- Eshani Mishra
- Priyanka Mishra **
- Sara Misra
- William James Mitchell
Minor: Philosophy
- ◆ Syed Raziq Mohideen
- ◆ Isabel E. Murdock
- David K. Murray
- ◆ Amolak Nagi **
- Shruti Narayan

- ◆ Karthik Natarajan
Additional Major: Computer Science
Minor: Business Administration
- ◆ Amukta P. Nayak
Minor: Game Design
- ◆ Yu-Ming Niou
Minor: Human-Computer Interaction
Minor: Learning Media
- Catherine M. O'Callaghan
- Chinedu Ifeanyi Ojukwu
- Joel Richard Osei
- ◆ Christina Heather Ou
Minor: Computer Science
- ◆ Raymond J. Paetz
Minor: Physical Computing
- Sourav Panda
- ◆ Arushi Patel **
Additional Major: Biomedical Engineering
- Philip Georges Petrakian
- ◆ Zachary B. Pomper
Minor: Social and Political History
- ◆ Adithya Raghuraman
- ◆ Oscar A. Ramirez Poulat
- ◆ Aditya Ranade
- ◆ Nikhil Rangarajan
- Richa Ravi
- ◆ Christopher A. Reed
Minor: Audio Engineering
Minor: Sound Design
- Diego A. Rodriguez
- Sandra Sajeev
- ◆ Sribhuvan Sajja
- ◆ Allison V. Scibisz
Minor: Social and Political History
- ◆ Nathan P. Serafin **
- Snigdha Sharma **
- Andy S. Shen
Minor: Business Administration
- Shivani S. Sheth **
- Haohan Shi
- ◆ Haowen Shi
Additional Major: Robotics
- ◆ Xiang Shi
Minor: Computer Science
- Rei E. Siew Hew Sam **
- Kevin M. Song
- ◆ Anirudh Sridhar *
Minor: Mathematical Sciences
- Eri Sugita
- Eric H. Sun
- Brandon R. Takao
Minor: Business Administration
- Bridget Tan
Minor: Audio Engineering
- Abhishek Tayal *
Additional Major: Human-Computer Interaction
Minor: Innovation and Entrepreneurship
- Elizabeth R. Thrasher
Additional Major: Psychology
Minor: Computer Science

- Joseph Wang
- Cooper P. Weaver
- Olivia C. Weiss
Minor: Computer Science
- Daniel R. Worpell **
- Jingze Wu
- ◆ Jennifer R. Xiao **
- ◆ Wenxin Xiao
Additional Major: Statistics
- Harry Jefferson Xu
Minor: Computer Science
- ◆ Xiang Xu **
- ◆ Harsh Yallapantula
- ◆ Yuan Yu Derek Yan
- Chen Yang **
Minor: Robotics
- ◆ David Z. Yang
- Zexi Yao
- ◆ Michael Caleb You
Additional Major: Computer Science
- Connor C. Young **
Minor: Business Administration
- ◆ Sihao Yu **
- ◆ Yi Lun Yu
- ◆ James H. Zhang
- ◆ Stanley Z. Zhang
Minor: Human-Computer Interaction
- Yuzhe Zhang
Minor: Music
- ◆ Tian Zhao
Additional Major: Computer Science
- Xinyu Zhao
- ◆ Yanying Zhu
Minor: Japanese Studies

MASTER OF SCIENCE

Electrical and Computer Engineering

- Aline Abimana **
- Evan J. Adkins *
- Nnamdi Adom **
- Anuj Ahluwalia **
- Nail Etkin Can Akkaya
- Fatema Almeshqab
- Nathan S. Appelson *
- Prashant Arunapuram
- Rachel Elizabeth Atkinson
- Vivaan R. Bahl
- Sarika Bajaj
- Homer F. Baker IV
- Matthew C. Baron *
- Sakthikarthik Baskar
- Christopher Brennan Bayley
- Raghav G. Behl **
- Umang S. Bhatt
- Aayush Bhutani
- Ilan Biala
- Justin Bigwi Jabo **

Elliott David Binder
 Nikhil R. Birmiwai
 Mark Blanco
 Amirali Boroumand *
 Sean Buckley **
 Biqing Cao *
 Qiyang Cao **
 Noah Ronald Carlson
 Darion Cassel
 Lam Wing Chan **
 Ananya Chandra
 Wei Ling Chang
 Allen Chao
 Bonny Chen **
 Chaoqun Chen
 Jaron Chen **
 Junye Chen
 Peng Chen
 Sijia Chen **
 Tianbo Chen
 Weiqiao Chen
 Yang Chen **
 Yonglin Chen
 Yunqian Chen
 Kin Sang Ching
 Wai Sing Ching
 Varsha Chinnaobireddy **
 Maitreyi Sunil Chitale
 Kevin H. Chon
 Cheng-Ming Chow
 Matthew S. Chu **
 Duo Cui **
 Ran Cui
 Rachana Danavadi
 Darius Davis
 Robert F. Davis
 Peter Quentin Salisbury de Groot **
 Karan Dhabalia
 Guillaume Didier
 Nathalie Polanco Domingo
 Hongbo Du **
 Xiangyu Du
 Xiaohui Du **
 Yicong Du **
 Pariskshit Dutt **
 Raewyn Arcadia Duvall
 Edward J. Escandon **
 Yi Fan
 Yunfei Fan
 Eric L. Fang **
 Haocheng Fang
 Nicholas Ferris **
 Tong Fu
 Parvathy Geetha **
 Stuti Ghiya

Evan J. Glaser
 Abhiram N. Gogate
 Joshua B. Goldstein
 Tyler F. Goulding
 Raghav Goyal
 Marcus G. Greer
 Zilei Gu
 Ning Guan
 Tushita Gupta **
 Oyku Han **
 Matthew R. Harding
 Madhumita Harish
 Yasamin Sadat Hashemi Tari
 Shuqi Hu **
 Yichen Hu **
 Felix Huang
 Hengji Huang
 Rui Huang **
 Xiukun Huang **
 Haywood Hunter
 Felicien Jean Ihrwe **
 Priyanshi Jain
 Adhishree Jaiprakash
 Anubhav Jaiswal **
 Hao Jia
 Xiaotong Jia
 Luxing Jiang
 Ji Jin
 Naveen Shankarappa Kakarla **
 Sourabh Girish Karandikar
 Theodore E. Kern
 Kartik Khandelwal
 Shaurya Khazanchi
 Hyun Jung Kim
 Munsung Kim
 Sophia Kovaleva
 Aditya Ramanand Kudva **
 Rishabh Kumar
 Anthony Allen Kuntz
 Ian-Jiun Lai **
 Maya Marguerite Lassiter
 Yuqi Lei
 Ai Li
 Evan K. Li
 Tianyu Li **
 Ximing Li
 Xiuying Li
 Zesheng Li
 Hongliang (Joe) Liang *
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 Joseph Liba
 Kimberly Jinxia Lim
 Nanjian Lin
 Bifei Liu
 Bing Liu **

Bowei Liu **
 Jennifer Liu
 Minyue Liu **
 Reid Eric Long Jr. **
 Alvin K. Luk
 Annan Ma
 Charlie W. Ma
 Lefu Maqelepo **
 Daniel Fekadu Marew **
 Scholastica Myrabel Memusi **
 Jeremy Meola
 Felistus Ayera Misiko **
 Saurabh Misra
 Vaibhav Mittal
 Nikhil Mohan
 Lalitesh Morishetti **
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 Joel Mugenyi **
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 Namrita P. Murali **
 Adit P. Namdev **
 Aadya Natesan
 Adolphe Ndagijimana **
 Shichao Nie
 Xiaoning Nie
 Agatha Niwomugizi **
 Daniel Kenechukwu Nkemelu
 Peter Oostema
 Hector G. Ostolaza **
 Dibyajyoti Pal
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 Sofia Pando
 Malik B. Parker
 Arushi Patel
 Bryce Patel **
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 David Zeyu Qing
 Zeqi Qiu **
 Manoj Raghunathan
 Tunmise Ibukun Raji
 Anirudh Ramakrishnan
 Smruthi Ramesh
 Varun Raghav Ramesh **
 Lokeshwaran Ravi
 Nkusi Richard **
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 Emily Ruppel
 Wilson Sa
 David Sanders **
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 Ford L. Seidel
 Nathan P. Serafin
 Omar Serrano **
 Jay Shaker

Pragya Sharma **
 Marie N. Shaw **
 Gauri Shelat
 Kuangji Shen
 Junyan Shi
 Rei E. Siew Hew Sam
 David A. Simon
 Christopher V. Smith
 Cody Smith
 Xuchen Song **
 Zhaoxiong Song
 Deborah Soung **
 Nandagopal Srinivasan
 Daniel A. Stiffler **
 Bradley John Stocks **
 Yuyan Sun
 Rutvij Supekar
 Lu Tang **
 Julian P. Trulear
 Xin Tu
 Felix Uwizeye **
 Aravind Vadali
 Ian Van Stralen **
 Dishita Vashi
 Sidharth Verma
 Karun Raju Vysyaraju
 Satyavrat Rajaram Wagle **
 Devesh Walawalkar
 Matthew Walck
 Rongzhi Wan **
 Chaoying Wang
 Dong Wang
 Han Wang **
 Hongting Wang
 Lanxiang Wang
 Shaoquan Wang
 Wei Wang **
 Colin R. Wee
 Xinding Wei **
 Samuel T. Westenberg
 Fangjing Wu **
 Yiqi Xiao **
 Jieying Xu **
 Yefei Xu
 Nithila Yalamanchi
 Sai Bhargav Yalamanchi **
 Harsh Yallapantula
 Jin Yan
 Can Yang **
 Cody Y. Yang
 Jiawei Yang
 Yimin Yang
 Benjamin V. Yates **
 Jun Ye **
 Nebiyou Yismaw **

Alexander Yu
 Jiaxin Yu
 Zhening Yue
 Ming Zeng
 Andrew Zhang
 David Zhang **
 Diana Zhang *
 Hengruo Zhang **
 Hongxi Zhang
 Jiyuan Zhang
 Libing Zhang
 Yilin Zhang
 Zhengkai Zhang
 Zhizhe Zhang
 Jeffrey H. Zhao **
 Yuxiang Zhao
 Kevin Zheng **
 Hancheng Zhong **
 Yuanyuan Zhou
 Jie Zhu

Software Engineering

Mingxuan Chai
 Priyanka Chatterjee
 Anzhe Chen **
 Xinyuan Chen **
 Tianxin Chu **
 Hao Cui
 Xiaoyi Duan
 Ruochen Fang
 Yen Feng **
 David Freilich **
 Mengye Gao
 Jin Gong **
 Liu Han **
 Yizhao Han
 Nan He
 Sabrina Hsu
 Jiali Huang **
 Zeqiang Huang **
 Jian De Jiang **
 Jerome Kimbrough **
 Siva Rama Krishna Kuntamukkala **
 Jiahui Lao **
 Sihan Li **
 Ye Li
 Zhenyi Li **
 Zhuowei Li
 Ziyuan Li
 Fan-Lei Liao **
 Jianbo Liu **
 Lu Liu **
 Xuanyou Liu **
 Xudong Liu
 Arnav Maiti

Jiaxin Miao **
 Phillip Oh **
 Serhan Oztekin **
 Liang Yu Pan **
 Tingfang Pan
 Joey Pinto
 Junbo Qin **
 Changtong Qiu **
 Haowen Qu
 Sri Harsha Vardhan Sanne **
 Xiaocen Shan
 Anshu Singh **
 Ximeng Sun **
 Zeyu Sun **
 Hao Tang **
 Meenu Liz Thayil
 Shanmuga Priyaa Venkatachalam **
 Vinay Venkatesh **
 Priya Venkateshaiah
 Juexin Wang
 Qixuan Wang **
 Ruiyang Wang
 Chenxuan Weng **
 Yijing Xia **
 You Xu **
 Ashuka Rumeng Xue **
 Yue Yang **
 Kai Yao **
 Tianyu Yao **
 Hang Yin **
 Haiyang Yu
 Amy X. Zhang **
 Bowen Zhang **
 Jun Zhang **
 Nan Zhang
 Changjiang Zhong
 Haonan Zhou **
 Yuchen Zhou

DOCTOR OF PHILOSOPHY

Raied Aljadaany
 Robust Blind Image Reconstruction
 from Low Resolution Corrupted Data
 Using Proximal Deep Networks
 Advisor(s): Marios Savvides
Jassim M. Aljuraidan **
 Information-Flow Control in Modern App
 Platforms: Modeling, Formal Verification
 and Controlled Declassification
 Advisor(s): Lujo Bauer
Youzhi Bao *
 Autonomous Computer Security Game:
 Techniques, Strategy and Investigation
 Advisor(s): David Brumley
Aniruddha Basak *
 Scalable Bayesian Network
 Learning and Its Applications
 Advisor(s): Ole J. Mengshoel

Maxim A. Buevich **

A System Architecture for Energy Theft Detection and Localization in Microgrids
Advisor(s): Anthony Rowe

Ermao Cai *

Power/Performance Modeling and Optimization: Using and Characterizing Machine Learning Applications
Advisor(s): Diana Marculescu

Chen Chen *

Infrastructure-Based Anonymous Communication Protocols in Future Internet Architectures
Advisor(s): Adrian Perrig

Yuan Chen

Secure Distributed Inference
Advisor(s): Soumya Kar, José M.F. Moura

Zhuo Chen

Learning for and with Efficient Computing Systems
Advisor(s): Diana Marculescu

Chiyu Dong

Behavior Prediction in Autonomous Driving
Advisor(s): John M. Dolan

Burak Erbagci **

Hardware-Entangled Inherently Secure Field Programmable Gate Arrays
Advisor(s): Ken Mai

Christopher Ian Fallin

Finding and Exploiting Parallelism with Data-Structure-Aware Static and Dynamic Analysis
Advisor(s): Phillip Gibbons, Todd Mowry

Mats Forssell

Long-Term Insulation of Active Electronics Embedded in Compliant Neural Probes
Advisor(s): Gary K. Fedder

Mary Elizabeth Galanko **

Nonlinear Resonant MEMS RF Demodulator for a Near-Zero-Power Wake-up Receiver
Advisor(s): Gary K. Fedder

Liangyan Gui

Towards Human-Like Motion Prediction
Advisor(s): José M.F. Moura

Aaron Harlap

Improving ML Applications in Shared Computing Environments
Advisor(s): Gregory R. Ganger, Phillip Gibbons

Hsu-Chieh Hu

Computational Urban Network Control: Using Schedule-Driven Traffic Control to Mitigate Network Congestion
Advisor(s): Stephen F. Smith

Zhuo Hui

Shape, Reflectance and Illumination Estimation From Mobile Devices
Advisor(s): Aswin C. Sankaranarayanan

Meric Isgec

Enabling Design of Low-Volume High-Performance Integrated Circuits
Advisor(s): Lawrence Pileggi

Irfan Ahmad Khan *

Novel Control Algorithms for Hierarchical Control of Power Systems
Advisor(s): Soumya Kar

Sungho Kim

Electrically Gated Nanoporous Membranes for Smart Drug Delivery and Biomedical Devices
Advisor(s): Jeffrey A. Weldon

Satwik Kottur

Visual Dialog: Towards Communicative Visual Agents
Advisor(s): José M.F. Moura

Ritchie Lee

AdaStress: Adaptive Stress Testing and Interpretable Categorization for Safety-Critical Systems
Advisor(s): Ole J. Mengshoel

Hongliang (Joe) Liang *

Integrated HAMR Light Delivery System via High Q Resonators
Advisor(s): James A. Bain

Bing Liu **

Learning Task-Oriented Dialog with Neural Network Methods
Advisor(s): Ian Lane

Xiaofei Liu **

Design for Reliability and Security of Networked Dynamic Systems: a Structured Systems Approach
Advisor(s): Bruno Sinopoli

Chieh Lo **

Modeling and Controlling of Multiscale Biological Networks with Applications to Precision Medicine
Advisor(s): Radu Marculescu

Stephanos Yuji Matsumoto

Effective and Practical Improvements to the Web Public-Key Infrastructure
Advisor(s): Bryan Parno

Matthew Ryan Maurer **

Holmes: Binary Analysis Integration Through Datalog
Advisor(s): David Brumley

Anjali I. Menon

Robust Recognition of Binaural Speech Signals Using Techniques Based on Human Auditory Processing
Advisor(s): Richard Stern

Justin Meza **

Large Scale Studies of Memory, Storage and Network Failures in a Modern Data Center
Advisor(s): Onur Mutlu

Jose Jeronimo Moreira Rodrigues *

3D Pose Estimation for Bin-Picking: A Data-Driven Approach Using Multi-Light Images
Advisor(s): Pedro M.Q. Aguiar, Takeo Kanade, João M.F. Xavier

Amritanshu Pandey

Robust Steady-State Analysis of the Power Grid Using an Equivalent Circuit Formulation with Circuit Simulation Methods
Advisor(s): Lawrence Pileggi

Tiago Sousa Pereira

Robot-Dependent Maps for Coverage and Perception Task Planning
Advisor(s): Manuela Veloso

Doru Adrian Thom Popovici **

An Approach to Specifying and Automatically Optimizing Fourier Transform Based Operations
Advisor(s): Franz Franchetti

Xuanle Ren **

IC Protection Against JTAG/IJTAG-Based Attacks
Advisor(s): Ronald D. Blanton, Vitor G. Tavares

Fazle Sadi **

Accelerating Sparse Matrix Kernels with Co-Optimized Architecture
Advisor(s): Franz Franchetti, Lawrence Pileggi

Anit Kumar Sahu **

Inference and Optimization over Networks: Communication Efficiency and Optimality
Advisor(s): Soumya Kar

João Tiago Martins Pereira de Almeida Saude **

Mean-Field Games Theory, Numerics and Applications
Advisor(s): Diogo Gomes, João Pedro Gomes, Soumya Kar

Rongye Shi

Optimizing Passenger On-Vehicle Experience Through Simulation and Multi-Agent Multi-Criteria Mobility Planning
Advisor(s): Peter Steenkiste, Manuela Veloso

Oliver Shih *

Learning to Listen: An Active Acoustic Approach to Sensing Spaces
Advisor(s): Anthony Rowe

Mazen Soliman **

Energy-Efficient Mixed-Signal Circuits for 5G and Beyond
Advisor(s): Jeyanandh Paramesh

Ervin Teng

Time-Ordered Online Training of Convolutional Neural Networks
Advisor(s): Bob Iannucci

Jesse Alan Thornburg **

A Tool for Probabilistic Evaluation of Microgrid Operating Strategies with Demand Side Management
Advisor(s): Bruce H. Krogh

Evgeny Toropov

Road Traffic Analysis with Surveillance Cameras Using Synthetic Training Data
Advisor(s): José M.F. Moura

Chia-Yin Tsai

Shape from Multi-Bounce Light Paths
Advisor(s): Aswin C. Sankaranarayanan

Jian Wang *

High Resolution 2D Imaging and 3D Scanning with Line Sensors
Advisor(s): Srinivasa G. Narasimhan, Aswin C. Sankaranarayanan

Yu Wang **

Accelerating Graph Processing on a Shared-Memory FPGA System
Advisor(s): James Hoe

Sean Chandima Weerakkody **

Active Detection for Resilient Cyber-Physical Systems
Advisor(s): Bruno Sinopoli

Zachary Weinberg **

Toward Automated Worldwide Monitoring of Network-Level Censorship
Advisor(s): Nicolas Christin

Yang Yaoqing

Coded Computing: New Approaches for Elastic and Robust Multi-Stage Computing
Advisor(s): Pulkit Grover, Soumya Kar

Tong Yu **

Adaptive and Robust Online Learning
in Complex Real-World Problems
Advisor(s): Ole J. Mengshoel

Ming Zeng

Deep Neural Networks for Wearable-
Based Human Activity Recognition
Advisor(s): Ole J. Mengshoel

Yingrui Zhang

Modeling, Analysis and Optimization of
Robustness in Interdependent Networks
Advisor(s): Osman Yagan

ENGINEERING & PUBLIC POLICY

BACHELOR OF SCIENCE

The department offers an additional
major B.S. degree in Engineering and
Public Policy with each of the five
traditional engineering departments
and in Science, Technology and
Public Policy with other departments.
Accordingly, our students are listed
within their traditional departments.

MASTER OF SCIENCE

Engineering and Public Policy

Samuel Harper Jones **
Michael J. Rath
Adam M. Stein
Peter Tschofen

DOCTOR OF PHILOSOPHY

Sunhee Baik **

An Improved Method to Assess the Value
of Assuring Limited Local Electric Service
in the Event of Major Grid Outages
Advisor(s): Alex Davis, M. Granger Morgan

Rolando Bettancourt *

Spectrum Management and Policy
Implications of a Next-Generation
ATSC 3.0 Television Standard
Advisor(s): Marvin Sirbu

Anabel F. Castillo Mora **

Topics on the Implementation
of Health Technology
Advisor(s): Alex Davis

Julia C. Chelen

The Natural Language of the Electric
Industry: Climate Change Discourse and
Decisions in Public Disclosure Filings
Advisor(s): Baruch Fischhoff,
Gabrielle Wong-Parodi

Cristobal De La Maza **

Preference Learning for Policy Analysis
Advisor(s): Inês Azevedo, Alex Davis

Jaeson D. Desai *

Infrastructure as Institutional
Relics: Insights from the United
States Bridge System
Advisor(s): Daniel Erian Armanios

Nichole Lynn Hanus *

An Engineering and Behavioral
Sciences Approach to Understand
and Inform Energy Efficiency and
Renewable Energy Decision-Making
Advisor(s): Gabrielle Wong-Parodi

Lynn Helena Kaack

Challenges and Prospects for Data-
Driven Climate Change Mitigation
Advisor(s): M. Granger Morgan

Jeremy Franklin Keen

Stakeholder Costs and Benefits
of Distributed Energy Resources
on Distribution Networks
Advisor(s): Jay Apt

Alexandre Kimiyaki Ligo **

Connected Vehicles for Internet Access:
Deployment and Spectrum Policies
Advisor(s): Jon Peha

Aviva S. Loew **

Tradeoffs in Energy, Water Use and
Cost at Thermoelectric Power Plants
Advisor(s): Paulina Jaramillo, Haibo Zhai

Erin Noel Mayfield

Cumulative Impact and Equity Objectives
in Energy System Modeling and Policy
Advisor(s): Jared Cohon, Allen Robinson

Sinnott J. Murphy

Correlated Failures and Power
System Reliability
Advisor(s): Jay Apt

Brian Joseph Sergi

Integrating Climate and Health
Damages in Decision-Making for
the Electric Power Sector
Advisor(s): Inês Azevedo

Evan David Sherwin

Decisions and Uncertainties in the
U.S. Energy System: Electrofuels
and Other Applications
Advisor(s): Inês Azevedo

Rachel Dryden Steratore

Public Understanding of Climate Science,
Extreme Weather and Climate Attribution
Advisor(s): M. Granger Morgan

Xiaodi Sun

Pollution Externalities and Emissions
Consequences of the U.S. Electricity Sector
Advisor(s): Inês Azevedo

INFORMATION & COMMUNICATION TECHNOLOGY

MASTER OF SCIENCE

Information Technology, Kigali, Rwanda

Mary Agnes Amuti
Joreen Arigye **
Anne Baranga
David Chukwuma Chukwuemeka
Tetevi Placide Ekon
Anne Gitau
Ignace Hakizimana
Dieume Hirwa **
Ibare John Kamau

Arsene Indamutsa

Huguette Sandrine Ingenere
Marie Claudine Ingenere
Ishimwe Nadine
Nchima Kapoma
Ella Ty Karambizi **
Oluwafunmilola Elizabeth Kesa
Leandre Kibeho
Joan Kirunga **
Fabrice Kwizera
Nancy Atieno Lubalo **
Violette Mahoro
David Raha Mawazo
Olga Gesare Mogaka **
Jeanne D'arc Mukakagame
Collins Wambani Munyendo **
John Wachira Munyi **
Aime Cesaire Musangamfura
Sarah Muwanguzi
Anne Bright Namuli **
Gervais Ngirabari
Samuel Nishimwe
Gilbert Niyongere
Daniel Amoto Omeiza
Tewodros Wondimu Robi
Albin Shema
Daniel Olufemi Togun
Andre Uzamurengera

INFORMATION NETWORKING INSTITUTE

MASTER OF SCIENCE

Information Networking

Hariharasubrama Abinaya
Yujie Ai
Sumit Bajaj **
Sriharsha Bandaru
Yunke Cao **
Hanqing Chen
Hsiao-Han Chen
Lei Chen
Weijie Chen
Zhengxu Chen
Shilun Ding **
Apoorv Gupta
Yuguang Huang **
Varun Uday Joshi
Shiwei Ju
Shravya Kaudki Srinivas
Sam Kurian Thomas
Yuhao Lei
YanJun Li
Yikang Liao **
Xingyuan Lin **

Shuangning Liu **
 Yi Liu
 Chi Lo
 Xin Ma **
 Ting Pan **
 Yichen Pan
 Jayadheep Shanmugam
 Utsav Sheth **
 Sheng Sun **
 Yuxuan Sun
 Tianqi Tan
 Xuxiang Tian
 Pallavi Udmalpet Rajan
 Weizi Wang **
 Zipeng Wang **
 Hao Wu
 Qingcheng Xiong
 Mochi Xue **
 Min Yang **
 Yang Yang **
 Du Zhang
 Yupeng Zhang
 Mingjie Zhao
 Peiqin Zhao **
 Tianchen Zhong
 Zhen Zhong
 Dan Zhou
 Yiwei Zhuang **

Information Security

Hazem Abdulmoeen H. Algurafi
 Mohammed Abdulaziz F. Almodawah
 Nicholas Kotey Amon
 Krishna Sharad Bagadia **
 Meenakshy Balachandran
 Anush Baskaran
 Karthika Brakaspathy
 Saksham Chitkara
 Julio Joel De La Cruz Natera
 Shmuel Yosef Dlinn
 Lin Dong
 Weichao Duan
 Rachel Perry Eaton
 Michael James Frohlich
 Alexander Perry Fulton
 Jia Guo
 Caitlin Ruth Hanley **
 Nai-Yuan Hu
 Janvi Jatakia
 Nicholas James Kantor
 Wenyang Ke
 Liam Ben Kirsh
 Ping Luo
 Prashant Nandakumar **
 Xingyang Pan

Jyh-Shyuer Peng
 Dhruvesh Rathore
 Yiyao Sheng
 Gagan Shivananda Bharathi
 Gangothi
 Jamie Elisabeth Thorpe
 Sahil Rajiv Uppal **
 Era Vuksani
 Mengge Wang
 Wenyu Wang
 Yun Chen Wu
 Carolina M. Zarate

Information Technology - Information Security

Chee Hau Chua
 Zhao Dong
 Christopher Thomas Hensler
 Ankit Jena
 Mengqiao Liu **
 Mengqi Mu
 Jason I. Rogers
 Nishchala Tangirala
 Bharathwaj Tiruputkuzhi
 Ranganathan **
 Tianming Wang
 Xincheng Wang **
 Jingjie Yu
 Peiyao Zhou

Information Technology - Information Security, Kobe, Japan

Rintaro Fujita **
 Shiran Li **
 Mingqiang Liang **
 Shusuke Morimoto **
 Wanyue Sun **
 Miki Takahashi **
 Fang Wang **
 Ziyuan Wang **
 Ranchao Zhang **
 Jinghui Zhu **

Information Technology - Mobility

Zhehong An **
 Shiva Amrit Avasarala
 Chia-Wei Chang
 Yuanwei Chen **
 Chia-Yu Chung
 Luo Dai **
 Yue Dong **
 Xuyu Fu
 Chinmay Prakash Gadgil
 Mimi Gong **
 Zengmingyu He **
 Yuechao Hou

Wei-Hsuan Hsu
 Yixian Jiang
 Ke Jin **
 Dharini Krishna **
 Wenting Lee **
 Boyi Li **
 Pingshan Li **
 Yulei Li **
 Zi Liang
 Je-Ming Lin **
 Weizi Liu **
 Zhexi Liu
 Xiaowei Lu
 Kejing Meng
 Rahul Raja
 Xuan Shi **
 Zeyuan Tan **
 Liwen Tang
 Zhongyi Tong **
 Nithin Venkat Sonti
 Aoran Wang
 Wurong Wang **
 Yizhou Wei
 Junsheng Xu **
 Wenjie Yang **
 Yuebin Yang **
 Liangchen Yi **
 Sihan You **
 Jiayu Yu **
 Zhi Zeng **
 Shaoxiong Zhang **
 Chao Zhao **
 Rongpeng Zheng **
 Jin Zhu **

MATERIALS SCIENCE & ENGINEERING

BACHELOR OF SCIENCE

Materials Science and Engineering

- ◆ Gaurav Balakrishnan
Additional Major: Biomedical Engineering
- Vineetha S. Bheemarasetty
Additional Major: Physics
- ◆ Mari-Therese S. Burton
- ◆ Allison M. Caron
Additional Major: Biomedical Engineering
- Shuchen Cong
Additional Major: Engineering and Public Policy
- ◆ Sophia T. Eristoff
Additional Major: Biomedical Engineering
- ◆ Max B. Farfel
- ◆ Jack A. Forman
Additional Major: Biomedical Engineering
- ◆ Tala Habbab
Additional Major: Biomedical Engineering

- ◆ **Christine Kim ****
Nathan S. King
- ◇ **Nicholas L. Lamprinakos**
Additional Major: Biomedical Engineering
- Cynthia Lao**
Minor: Biomedical Engineering
- ◇ **Jacky Lao**
Additional Major: Statistics and Machine Learning
- ◆ **Nathan M. Levin**
Bonnie Li
- ◆ **Thomas P. Matson**
Minor: Computer Science
- ◆ **Xuanyu Min**
Additional Major: Biomedical Engineering
- Catherine E. Mondo**
- Jasio Santillan ****
Additional Major: Biomedical Engineering
- Nicholas Scherl ****
Additional Major: Psychology
- John Shlonsky**
Minor: Business Administration
- Txai T. Sibley**
- ◆ **Sogu Sohn**
Additional Major: Biomedical Engineering
- Zhuri A. Solan**
Additional Major: Biomedical Engineering
- ◇ **Madison R. Stiefbold**
Additional Major: Biomedical Engineering
- Julian M. Sweeney**
Minor: Psychology
- Kira Vargas**
Minor: Biomedical Engineering
- ◆ **Qian Yang**
Zihui Yang **
Minor: Electronic Materials

MASTER OF SCIENCE

Additive Manufacturing

Qu He
Christine Kim
Yiyuan Wang

Materials Science

Tianwen Chen **
Tianxiang Du **
Yuqi Guo **
Runbo Jiang **
Haobo Li **
Peng Peng **
Mahemaa Rajasekaran **
Haosheng Song
Jinming Wu **
Srujana Rao Yarasi
Maituo Yu **
Mingyi Zhang **
Yueheng Zhang **

Materials Science and Engineering

Abhinav Bhagat
Haomin Chen
Megan Katherine DeBari
Zihao Guo
Ke-Wei Jin **
Nicholas Shephard Johnson **
Christopher Aaron Kantzos **
Andrew Robert Kitahara
Nicholas Latwis
Bo Lei **
Aditya Menon **
Elyce A. Milligan **
Keian Scott Minnich
Alexandra C. Moy
Joseph George Pauza
Daniel J. San Roman
Jasio Santillan
Nicholas Scherl
Shiqi Sheng
Lonnie Alexander Smith
Maria Anida Stang
Joseph Newton Tessmer **
Vignesh Viswanathan **
Liam Charles Wisehart *
Yumin Yan
Zihui Yang
Enbo Zhang **
Yumin Zhang
Zhe Zhao
Catherine Lin Zhou

DOCTOR OF PHILOSOPHY

Ahmed Abdelgawad *
Metal Alloy Magnetic Nanodots and Magnetic Tunnel Junctions
Advisor(s): Sara Majetich
Natan Michael Aronhime *
Development of Fe-Ni-Based Metal Amorphous Nanocomposites (MANCs) for Electric Motor Applications
Advisor(s): Michael McHenry
Rafael Coura Giacomini
Mechanisms of 3rd Generation Advanced High-Strength Steel Slab Embrittlement
Advisor(s): Bryan A. Webler
Mauro Elias Ferreira do Nascimento *
Inclusions Size Distributions After Calcium Treatment in Low Carbon Aluminum Killed Steels
Advisor(s): P. Chris Pistorius
Sarah Frisco
Failure Inducing Features at Lithium Battery Interfaces
Advisor(s): Shawn Litster, Jay Whitacre
Caroline S. Gorham *
On the Formation of Crystalline and Non-Crystalline Solid States and Their Thermal Transport Properties: A Topological Perspective Via a Quaternion Orientational Order Parameter
Advisor(s): David E. Laughlin

Yu-Ting Hsu

Simulation of Local Electrochemistry in Solid Oxide Fuel Cell Microstructures by High Performance Computation
Advisor(s): Shawn Litster, Paul A. Salvador

Minyoung Jeong *

Measurements of Thermal Properties of Phonon Bridge Adhesion Layers, Nanogaps and Metal-Organic Frameworks Using Frequency-Domain Thermoreflectance (FDTR)

Advisor(s): Jonathan Malen

Isha Kashyap *

Quantitative Characterization of Magnetic Domain Structure in Near Eutectoid Co₄₀Pt₆₀ Alloys
Advisor(s): Marc De Graef

Ik Soo Kwon *

Multimodal Control of Adhesion in Polydopamine Nanomembranes Through Texture, Microstructure and Chemistry Control
Advisor(s): Christopher Bettinger

Derek Kit-Lun Lau *

Experimental Evaluation of the Interfacial Dzyaloshinskii-Moriya Interaction in Co/Ni Magnetic Multilayers
Advisor(s): Vincent Sokalski

Dasheng Li *

Study of Thermal-Induced Threshold Switching Devices for Selector Applications
Advisor(s): Marek Skowronski

Yu Lin *

New High Toughness Ultra-High Strength Steels: Effects of Composition and Heat Treatment on Strength and Toughness
Advisor(s): Warren M. Garrison

Ankita Mangal *

Applied Machine Learning to Predict Stress Hotspots in Materials
Advisor(s): Elizabeth Holm

Stephano Papadopoli Tonelli Piva *

Metallic Inclusion Changes in Si-Mn Killed Steels
Advisor(s): P. Chris Pistorius

Shivram Kashyap Sridhar **

Study of Correlation Between Microstructure and Mechanical Properties in Nickel Titanium Used for Biomedical Applications
Advisor(s): Anthony D. Rollett

Mary Elizabeth Story **

Microstructural Effects on High Temperature Selective Oxidation of CMnSi Advanced High-Strength Steels
Advisor(s): Bryan A. Webler

Michelle Tsui

Mechanics of Rigid Rod Networks: Interplay of Junction Properties and Strut Rigidity
Advisor(s): Mohammad F. Islam

MECHANICAL ENGINEERING

BACHELOR OF SCIENCE

Mechanical Engineering

Jordan Aaron **

- ◆ **Eliana A. Abbas**
Minor: Robotics

- Obehioye M. Adubor
Minor: Robotics
- Samrose Ahmed
- ◆ Da Young Ahn
Minor: Business Administration
 - Kwadwo Akompong
Minor: Robotics
 - Benjamin R. Almack
Additional Major: Engineering and Public Policy
 - Berk A. Alper
Minor: Social and Political History
 - Christine T. Amin **
 - ◆ Jens M. Andersen
 - Ethan D. Anderson
 - ◆ Fabian E. Aristizabal
Additional Major: Physics
 - ◆ Bryant J. Backus **
 - Lior Barhai
Minor: Mechanical Behavior of Materials
 - Monica Barragan
Minor: Robotics
 - ◆ Gabriel M. Bay
 - Justin P. Belardi
 - Noah N. Berhanu
Minor: Technical Writing
 - Riddhiman Bezbaruah
 - Molly M. Boerner
 - ◆ Christopher Bright Jr.
 - ◆ Victoria R. Britcher
Minor: Robotics
 - ◆ Emily Dominus Broude
Additional Major: Biomedical Engineering
 - Dominique B. Brych **
 - Jeffrey S. Campbell
 - Kamal R. Carter
Minor: Robotics
 - Eison Chiang
Additional Major: Engineering and Public Policy
 - Shivang Chordia *
Minor: Physics
 - ◆ Theodore Chou
Additional Major: Robotics
 - Yu Ree Chu
Minor: Chinese Studies
 - ◆ Jiwon Chung
Additional Major: Engineering and Public Policy
 - ◆ Jerrod W. Coning **
Minor: Business Administration
 - ◆ Christopher D. Cortez
 - Asad Dar
Minor: Business Administration
 - Yosser A. D'Avanzo *
Minor: Robotics
 - Krishna Dave
Additional Major: Engineering and Public Policy
 - ◆ Pieter De Buck
 - Jason Y. Deng
 - Nicholas Desmornes **
 - Nathan Dozier
 - Ryan T. DuBois
 - Samantha R. Ealy
 - Patrick Joseph Ehland
 - ◆ Vida Ekhlās
Minor: Business Administration
 - Elizabeth C. Elrod
Additional Major: Engineering and Public Policy
 - Dominique A. Escandon
 - ◆ Reed Martin Farber
 - ◆ Hao Feng **
Minor: Business Administration
 - ◆ Shannon N. Finnerty
Minor: Music
 - Alan B. French
 - ◆ Raymond H. Galeza
Additional Major: Robotics
 - Ashwini S. Ganpule
 - Shalena Michelle Garbutt
Minor: Business Administration
 - Randy Garcia **
 - Andre Francisco Gutierrez Marty
Additional Major: Biomedical Engineering
 - ◆ Jacob M. Halasowski
Minor: Physics
 - ◆ George Andrew Harter **
 - Aleah Loren Haygood
Additional Major: Biomedical Engineering
 - Qu He *
Minor: Japanese Studies
 - Sarah R. Hempton
 - Evan K. Hill **
Minor: Physical Computing
 - Nicole T. Ho
Additional Major: Engineering and Public Policy
 - Marshall Hoebing
 - Richard C. Hoffberg
Minor: Social and Political History
 - Marcus Horn
 - ◆ Terence Yiyuan Huang
Additional Major: Engineering and Public Policy
 - ◆ Calvin R. Hubbard
 - Sarah Jane Jurgens
Minor: Hispanic Studies
 - Sarah A. Karp **
Minor: Music Technology
 - Jack A. Kasbeer **
 - ◆ James W. Kromka
Additional Major: Biomedical Engineering
 - ◆ Matthew S. Kubala
Additional Major: Biomedical Engineering
 - ◆ Hans Kumar
Additional Major: Robotics
 - Elizabeth F. Kuo
 - Michelle A. Kyin
 - Wade A. Lacey
 - Jeffrey Laine
 - Katie Lam
Minor: Robotics
 - ◆ Kimberly K. Lamberti
Additional Major: Biomedical Engineering
 - ◆ Jack H. Lance
Minor: Robotics - Arthur F. Levy
Minor: Robotics
 - Charles Li
 - ◆ Diana Li
 - ◆ Xueting Li
 - ◆ Yiran Li
Minor: Japanese Studies
 - Oliver C. Liburd
 - ◆ Jasmine Lim
Additional Major: Engineering and Public Policy
 - ◆ Yu Chuan (Tiffany) Lin **
 - Gerardo D. Lira
Additional Major: Biomedical Engineering
 - Shuo Liu
 - Samantha Lauren Lohier
 - ◆ Misbah Fatima Lokhandwala
Minor: Gender Studies
 - ◆ Hannah K. Loy
Additional Major: Robotics
 - ◆ Brinda Malhotra *
Minor: Business Administration
 - Raul Cuahtemoc Martinez
 - ◆ Zachary P. Masciopinto
 - ◆ John M. McCambridge
Minor: Business Administration
 - James Michael McMurray Jr. **
Minor: Social and Political History
 - Fernando D. Melean Aquino
Additional Major: Computer Science
 - ◆ Michael C. Messersmith
 - ◆ Sarah M. Miholer **
 - Gregory P. Miller
Additional Major: Computer Science
 - Justin Mitchell
Minor: Robotics
 - Jaesohn T. Moncrieffe
 - Kara Nickolich
Additional Major: Biomedical Engineering
 - Diya A.N. Nuxoll **
Minor: Hispanic Studies
 - Minor: Robotics
 - Sang Hwan Oh **
 - ◆ Natsuha Omori
Additional Major: Biomedical Engineering
 - Gwendolyn Louise Opiela
 - ◆ Amber Celine Paige
 - Grace D. Palmieri
 - Mecca Jamal Parker
 - ◆ Samuel N. Passell
 - Henry A. Peck
 - ◆ Doria Pei
 - ◆ Alexander Joseph Peltier
 - Spencer Persaud
Additional Major: Robotics
 - Nicholas D. Peterson
Minor: Music
 - Alan H. Qiu
Additional Major: Computer Science
 - Danielle K. Quan **
Additional Major: Robotics
 - Cesar E. Quinones

Shihao Liang **
 Tong Lin **
 Yu Chuan (Tiffany) Lin **
 Songlin Liu
 Ziang Liu **
 Yuxuan Luan
 Erica Magdalena Martelly
 Michael C. Messersmith
 Tomonobu Nagaoka **
 Suyash Nigam **
 Yun Sik Ohm
 Nachiket Pramod Parulekar
 Rahi Ketan Patel **
 Alexander Joseph Peltier
 Calvin Qiao
 Danielle K. Quan
 Rahul Shailesh Raina **
 Xiaobin Ran **
 Abhinav Ray Baruah **
 Eric P. Reeder **
 Benjamin Reibman **
 Hunter T. Rideout **
 Dylan B. Roof
 Samuel A. Rylowicz *
 Dipanjan Saha
 Jorge Arturo Salome
 Saumya Saxena
 Alexander Schindler
 Philipp Juergen Schneider
 Stephen D. Scott
 Cameron C. Selby **
 Chendur Singaram Senthilnathan
 Nishant Satish Sharma **
 Shivang Shekhar **
 Tianyi Shen **
 Kuangjie Sheng **
 Shreshtha Pradip Shetty **
 Sagar Santosh Shetye **
 Mo Shi
 Ellie Shin **
 Nikhil Ganesh Shinde **
 Fang Shu
 Prem K. Solanki
 Lin Song
 Yanru Song **
 Sidharth Srikumar
 Yuzhe Sun
 Zhenhua Sun
 Taylor J. Tabb
 Tzu-Chieh Tai **
 Stephen Heller Thomsen
 Bo Tian
 Haoyang Tong **
 Krishna Toshniwal **
 Eliezar M. Vigdorichik
 Akshay Kumar Vijayaraghava
 Nathan J. Walko **

Rae-Djamaal Wallace
 Austin Shih-Ping Wang
 Jiayi Wang **
 Qi Wang
 Wei Wang **
 Xiaobo Wang
 Xueqiang Wang **
 Yuyang Wang
 Zihao Wang **
 Barrett Larned Werner
 Di Wu **
 Qingyuan Wu
 Haosen Xing
 Qin Xu **
 Xiaomin Xu
 Yigit Yakupoglu
 Zeyu Yan
 Zhangshihao Yang
 Wenzhao Ye
 Zisheng Ye
 Siqi You **
 Dali Yu **
 Xinjia Yu
 Ant Yucesoy
 Adam Z. Zeloof
 Wenyuan Zhang **
 Yan Zhang
 Yichen Zhang **
 Zheyuan Zhang **
 Bryan Zhao
 Yichen Zheng **
 Hanwei Zhou

DOCTOR OF PHILOSOPHY

Wei Chen
 Mechanics of Material Removal
 in Nanomilling: Measurement,
 Analysis and Modeling
 Advisor(s): Burak Ozdoganlar
 Stuart B. Diller **
 Design, Characterization and
 Implementation of Lightweight and
 Energy-Efficient Electroadhesive
 Clutches for Robotics
 Advisor(s): Steve Collins, Carmel Majidi
 Joshua M. Giltinan
 Actuation and Addressability for the
 Manipulation of Objects by Magnetic
 Microrobotic Capillary Grippers
 Advisor(s): Metin Sitti
 Peishi Gu
 Characterizing the Intra-City Spatial
 Patterns on Multi-Scales of Air
 Pollution and Source Contributions
 with Mobile Sampling Platforms
 Advisor(s): Albert Presto
 Keith Heyde *
 Engineering Automated
 Mechatronic Systems with DNA-
 Encoded Microcontrollers
 Advisor(s): Phil LeDuc, Warren Ruder

Changho Oh *
 Effects of Surface Preparation, Processing,
 Materials and Operating Conditions
 on MEMS Switch Contact Reliability
 Advisor(s): Maarten P. de Boer
 Steven Rich **
 Electrically Activated Stiffness-
 Switching with Low-Melting-Point
 Conductive Thermoplastic
 Advisor(s): Carmel Majidi
 Mohammad Sadeq Saleh
 Additive Manufacturing of 3D
 Microarchitected Materials, Micro
 Electrode Arrays, and Micro Lattice
 Batteries: Process Development
 and Application Demonstration
 Advisor(s): Rahul Panat
 Oleg B. Sapunkov
 DFT Applications of the Ising Model
 Advisor(s): Venkat Viswanathan
 Ramesh Shrestha *
 Thermal and Mechanical Properties
 of Individual Polymer Nanofibers
 Advisor(s): Maarten P. de Boer, Sheng Shen
 Donghoon Son **
 Localization, Calibration, Control
 and Design of Magnetically Actuated
 Soft Capsule Endoscopes
 Advisor(s): Metin Sitti
 Ved Vyas *
 Generation and Conditioning of Metric
 Tensor Fields for Design, Analysis
 and Manufacturing Applications
 Advisor(s): Kenji Shimada
 Kirby Ann Witte **
 Design, Characterization and
 Implementation of Lower-Limb
 Exoskeletons for Performance
 Enhancement During
 Walking and Running
 Advisor(s): Steve Collins
 Shichao Yang **
 Monocular Visual SLAM with Object
 and Layout Understanding
 Advisor(s): Sebastian Scherer
 Zhou Yu *
 Developing Tissues with Biomimetic
 Topographies and Vasculature
 Through Micromachining and
 Extrusion-Based 3D Printing
 Advisor(s): Phil LeDuc, Burak Ozdoganlar

STUDENT-DEFINED MAJORS

BACHELOR OF SCIENCE

Global Perspectives and Technology

Alicia R. Carrion
 Minor: Engineering Studies

Financial Services and Innovation

Awetu Magege
 Minor: Engineering Studies

Technology and Humanistic Studies

Arnelle Etienne

College of Fine Arts

DEAN OF THE COLLEGE

Dan J. Martin

SCHOOL OF ARCHITECTURE

Stephen Lee, Head of the School

SCHOOL OF ART

Charlie White, Head of the School

SCHOOL OF DESIGN

Terry L. Irwin, Head of the School

SCHOOL OF DRAMA

Peter Cooke, Head of the School

SCHOOL OF MUSIC

Denis Colwell, Head of the School

STUDENT-DEFINED MAJORS

Kristen Letts Kovak, Senior Associate Dean for Academics

ARCHITECTURE

BACHELOR OF ARTS

Architecture

- John C. Butler
Minor: Architecture History
- ◇ Dina Chen
Minor: Computer Science
Minor: Physics
- Emily Degrandpre
Caitlin E. Donnelly
Minor: Drama
- Sung Phil Hwang
- ◇ Harshvardhan Kedia
- ◇ Hamza Q. Qureshi
Additional Major: Human-Computer Interaction
- Jingyi Zhu
Minor: Architectural Representation and Visualization
Minor: Media Design

BACHELOR OF ARCHITECTURE

Architecture

- ◇ Anirudh Anand
Minor: Architecture History
- Ryan Auld
Minor: Social and Political History
- ◇ Rachel A. Baker
Additional Major: Social and Political History
- Zane S. Birenbaum
Minor: Engineering Studies
- ◇ Gunn Chaiyapatranun
Minor: Architecture History
Minor: Japanese Studies
- Serra Cizmeci
Minor: Psychology
- ◇ Miranda C. Ford **
Minor: Building Science

Kerrian France

Minor: Anthropology
Minor: English

Yang Gao

Mounica Guturu

- ◇ Irfan M. Haider
- ◇ Zain Amir Islam-Hashmi
Minor: Architectural Design Fabrication
Minor: Intelligent Environments

Ritchie R. Ju

Jai Kanodia

Minor: Business Administration

- ◇ Timothy N. Khalifa
Minor: Social and Political History

- ◇ Gargi Lagvankar
Additional Major: Social and Political History

Chaeyun Lee

- ◇ Nicole Somi Lee-Park
Additional Major: Chinese Studies

- ◇ Elizabeth L. Levy
Minor: Environmental and Sustainability Studies

- ◇ Kelly Li
Additional Major: Social and Political History

Bingxuan Liang

Minor: Photography

- ◇ Xin Hui Lim
Minor: Media Design

Yushan Liu

Minor: Human-Computer Interaction

Hannah C. Martinez

Minor: Film and Media Studies

Isadora Martins

Emily M. Melillo

Minor: Art

- ◇ Matthew L. Radican
Minor: Building Science

Somin Shim

Minor: Architectural Representation and Visualization

Sally Nayoung Sohn

Minor: Business Administration

- ◇ Aditi Chandrashekhar Thota
Minor: Design

- ◇ Dingkun Wang
Minor: Music

- ◇ Yirui Wang
Minor: Design

Yan Yan

Minor: Media Design
Minor: Physical Computing

Victoria E. Yong

Minor: Architecture History
Minor: Intelligent Environments

Henry Yoon

MASTER OF ADVANCED ARCHITECTURAL DESIGN

Advanced Architectural Design

Stephanie Smid

Hang Wang

MASTER OF ARCHITECTURE

Architecture

Mariana Alberola Rezza

Chaz Barry

Nikhita Bhagwat

Jacob Clare

Maddi Johnson

Yash Khemka

Anthony Kosec

Bridgette Mary Mekkelsen

Liale Nijem

Cassidy Rush

David P. Suchoza III

Gautam Thakkar

Bryan Hamilton Trew

Jay Tyan

William Ulmer

Yingyang Zhou

MASTER OF SCIENCE

Building Performance and Diagnostics

Phillip Kuehne
Jing Yang
Lili Yu
Shihao Zhang

Computational Design

Özgüç Bertuğ Çapunaman
Wei-Wei Chi
Ian Friedman
Anna Henson
Runchang Kang
Zheng Luo
Jinmo Rhee
Humphrey Yang
Zhuoni Yang

Sustainable Design

Miranda C. Ford
Xinxin Hu *
Roshni Krishnan *
Harshavardhan Vinjam *

MASTER OF TANGIBLE INTERACTION DESIGN

Tangible Interaction Design

Claire S. Hentschker *

MASTER OF URBAN DESIGN

Urban Design

Jianxiao Ge
Chase Kea
Rebecca Lefkowitz
Sai Prateek Narayan Ramachandran
Deepanshi Sheth
Sujan Das Shrestha
Chi Zhang

DOCTOR OF PHILOSOPHY

Nizar S. Eldaher
Green Stormwater Infrastructure
Strategy Generation and Assessment
Tool for Site Scale and Urban Planning
Advisor(s): Jared L. Cohon,
Erica Cochran Hameen,
Chris T. Hendrickson

ART

BACHELOR OF FINE ARTS

Art

- ◆ Xavier J. Apostol
Minor: Media Design
- ◇ Shannon A. Case
Minor: Human-Computer Interaction
- ◆ Ashley Chan
Minor: Design
Minor: Media Design
- ◆ Andrew Chang
Minor: Game Design
- ◆ Katrina Chaudoin
Minor: Animation and Special Effects
- ◆ Kelli R. Clark **
Faye-Belle Couvrette **
- ◆ Ariana C. Daly
- ◆ October Lane Donoghue
Minor: Gender Studies
Minor: Photography
- ◆ Emily E. Giedzinski **
Max E. Gonzales *
- ◆ Kianna Briel Gonzalez
Mariah Stewart Hill
- ◆ Hanna Kang
Additional Major: Human-Computer Interaction
- ◆ Adela A. Kapuścińska
Minor: Game Design
- ◆ Soyun Kim
Isadora Krsek
Minor: Human-Computer Interaction
Minor: Media Design
- ◆ Robertus R. Lawantara
- ◆ Summer Jade Leavitt *
- ◆ Catherine Luo
Minor: Animation and Special Effects
- ◆ Ariana Jhaveri Nathani
Minor: Human-Computer Interaction
- ◆ Rhea Nayyar
Minor: Media Design
- ◆ Brandon M. Ngai
Minor: Architecture
- ◆ Victoriano Reyes
- ◇ Gwen E. Sadler **
- ◆ Anna L. Schulz
- ◆ Grace G. Simmons
Minor: Creative Writing
- ◆ Sofia Miren Syjuco
Minor: Game Design
- ◆ William H. Taylor *
Aman Tiwari
Minor: Computer Science
- ◆ Jessica Chia-Wen Tsai **
Gerald Patrick Warhaftig
- ◆ Olivia C. Yi

MASTER OF FINE ARTS

Art

Nicholas J. Crockett
Shohei Katayama
Erin M. Mallea
Joyce L. Poulard

DESIGN

BACHELOR OF DESIGN

Design

- ◆ Juan P. Aranda
Minor: Professional Writing
- ◆ Gautam Bose
- ◆ Emma Terese Bolt Brennan
- ◆ Hea Jin Cha
- ◆ Hee Seo Chun
- ◆ Dahye Chung
Heidi S. Chung
- ◇ Remy E. Davison
Minor: Creative Writing
- ◇ Aisha G. Dev
- ◆ Kailin Dong
Additional Major: Human-Computer Interaction
- ◆ Anna N. Gusman
Minor: Intelligent Environments
- ◆ Conner Q. Harden
- ◆ Jenny J. Hu
Minor: Human-Computer Interaction
- ◆ Monica Huang
Minor: Film and Media Studies
Minor: Intelligent Environments
- ◇ Rufeng Ji
Additional Major: Human-Computer Interaction
- ◆ Faith Kim
Minor: Art
- ◆ JooHee Kim
Minor: Human-Computer Interaction
- ◆ Soonho Kwon
Minor: Game Design
Minor: Physical Computing
- ◆ Tiffany H. Lai
Minor: Human-Computer Interaction
- ◆ Jeong Wan Lee
- ◆ Kyle D. Lee
- ◇ Susie Lee
Minor: Human-Computer Interaction
- ◆ Yvette W. Lee
- ◆ Shannon W. Lin
Minor: Business Administration
Minor: Human-Computer Interaction
- ◆ Marisa R. Lu
Additional Major: Human-Computer Interaction
- ◆ Jessica Ka-Man Nip
Additional Major: Human-Computer Interaction

- ◇ Lucas Ochoa
Additional Major: Human-Computer Interaction
Natapitt Sethpornpong *
Minor: Business Administration
- ◆ Jasper M. Tom
Helen D. Wu

BACHELOR OF FINE ARTS

Communication Design

Lydia Chung
Hae Wan Park **

MASTER OF ARTS

Design

Rachel Gray Alexander
Michelle Rose Cedeno
Edwin Samuel Cho
Ming-Chieh Chou
Thomas Conroy Eley IV
Helen Chen Hu
Amrita Khoshoo
Elizabeth Louise Larson
Krystal Tung
Ashley Varrato
Ceda Verbakel
Ekta Verma

MASTER OF DESIGN

Design for Interactions

Zacharia Bachiri
Suzanne Choi
Tzu-Chao Chou
Graeme Buckminster Nelson
Crawford
Scott Cameron Dombkowski
Adrian E. Galvin
Katherine Marie Herzog
Joseph E. Hines
Chen Ni
Laura Helena Rodriguez-Eng
Devika Singh
Mary Tsai
Yin-Jen Wang
Shengzhi Wu

MASTER OF PROFESSIONAL STUDIES

Design for Interactions

Krishna Gautham Bagepelly
Carlie Susan Guilfoile
Tithi Ashishkumar Jasani
Anukriti Kedia
Tilo Julian Krueger

Joshua Steven LeFevre
Uluwehi Mills
Denise Nguyen **
Saloni Sabnis
Khushi Sanjay Shah
Emma Zelenko

DOCTOR OF PHILOSOPHY

Ahmed Ansari
Decolonising Design Studies:
A Cosmological Perspective to
Designing Towards the Pluriverse
Advisor(s): Gideon Kossoff

Anne Leslie Burdick
Designing How We May Think:
Digital Humanities Research Through
Speculative Knowledge Design
Advisor(s): Molly Wright Steenson

Stephen Jon Neely
Soma Literate Design: Recentering
the Interstitiality of Experience
Advisor(s): Jonathan Chapman,
Dan Lockton, Cameron Tonkinwise

Katherine Hope Scott
Co-creating Alternative Economic
Practices Through Design
Advisor(s): Dan Lockton

DRAMA

BACHELOR OF FINE ARTS

Drama

- ◇ Sarah Elia Battaglia
- ◇ Gabrielle Zara Bucci **
- ◆ Kristina C. Bylancik
- ◆ Christopher Brian Calder
Minor: Business Administration
- ◆ Mary Frances Candies
- ◇ Sophie Chen
- ◇ Cassandra R. Clark
- ◇ Connor R. Driscoll
- ◆ William Ryan Dumas
- ◇ Diyar Eyuboglu
- ◇ Claire Elizabeth Farrokh
- ◆ Carmen Flood
- ◇ Javier A. Galarza-Garcia
- ◆ Lillian S. Ganser
- ◇ Asa P. Gardiner
- ◆ Julian E. Goldman
- ◇ Safiya Kaiya Harris
- ◆ William P. Harrison
- ◇ Zachary Herman
- ◇ Antonio J. Jeffries
- ◆ Megan Roisin Jones
- ◆ Alexandra E. Kaplan
Minor: Media Design
- ◇ Scott A. Kennedy
- ◇ Natalia G. Kian

- ◆ Kameron N. Kierce
- ◆ Jasmine Monet Lesane
- ◆ Michelle J. Li
- ◆ Scott Benjamin MacDonald
- ◆ Emma G. McIntosh
Minor: Creative Writing
- ◇ Caroline I. Mixon
- ◇ Sam A. Molitoriss
Minor: Photography
- ◆ John Walker Moosbrugger
- ◇ Jonathan Eric Norwood
- ◆ Samuel J. O'Byrne
- ◆ Tasheim Ramsey Pack
- ◆ Cassidy A. Pearsall
- ◇ Jamie Phanekham
- ◇ Jacob Bernard Poser
- ◆ Brenna C. Power
- ◆ Vanessa M. Ramon
- ◇ Emma Elizabeth Reichard
- ◆ Leaf Rickard
- ◇ Alexander D. Rosati
- ◆ Roma Victoria Scarano
- ◆ Lucy M. Scherrer
- ◆ Annette A. Scheuermann
Minor: Business Administration
- ◆ Sasha Schwartz
- ◆ Gena Sims
- ◆ Kayla Rene Stokes
- ◇ Joseph Owen Stone
- ◇ Harry Thornton
- ◆ Jacob D. Wesson
- ◇ Jasjit G. Williams-Singh

MASTER OF FINE ARTS

Costume Design

Natalie N. Burton
Gina Marie Cercone
Lindsay A. Tejan
Meng-Han Yeh
Yujia Zhang

Costume Production

Amanda J.V. Roberts

Directing

Philip Wesley Gates
Rachel Gita Karp

Dramatic Writing

Sowmya Ashokkumar
Elizabeth Baker
Daniel Burns
Lauren D'Errico
Nicole Zimmerer

Lighting Design

Alex Gibson

Production Technology and Management

Thomas W. Strong

Michael Cody Summers Westgaard

Scene Design

William F. Blackmore

Kathryn Fetrow

Adryan Miller-Gorder

Selby Elizabeth Souza

Yijun Yang

Sound Design

Aaron Landgraf

Anthony Stultz

Stage and Production Management

Kyrie Maria Bayles

Madeleine Caldwell Erskine Evans

JinAh Lee

Technical Direction

Kelly Kaye Simons

Video and Media Design

Davey T. Steinman

Syuan-Cheng Sun

Adam J. Thompson

MUSIC**BACHELOR OF FINE ARTS****Music (Composition)**

Evan S. Neely

Minor: Conducting

Jordan B. Speranzo

Minor: Conducting

Music Performance (Bagpipe)

- ◆ Steven G. MacDonald

Music Performance (Bassoon)

Tyler T. Harper

Music Performance (Cello)

- ◆ Sameer A. Apte

Music Performance (Flute)

- ◆ Aydan J. Hensley

Minor: Social and Political History

- ◆ Jennifer Minsoo Jo

Minor: Psychology

Music Performance (French Horn)

- ◆ Cooper S. Johnson
- ◆ Samantha M. Slockbower

Minor: Gender Studies

Music Performance (Harp)

- ◆ Mia R. Venezia

Music Performance (Oboe)

- ◆ Christian Bernard
- ◆ Brooke B. King **

Minor: Music Education

Music Performance (Percussion)

Gabriella L. Caminos

Minor: Drama

- ◆ Eric M. Stoss

Minor: Computer Science

Music Performance (Piano)

- ◆ Derek Hamersly

Music Performance (Tuba)

- ◆ Michael J. Fleming
- ◆ Jacob W. Fulkerson **

Minor: Music Education
Minor: Music Technology

- ◆ Andrew J. Hook **

Minor: Conducting
Minor: Music Education
Minor: Music Theory**Music Performance (Viola)**

Veronica Janet Lopez

Music Performance (Violin)

- ◆ Kyoko Inagawa

Music Performance (Voice)

- Alexandra E. Aks
- ◆ Sarah Florence Barker

Minor: Creative Writing

Daniel A. Brennan
Minor: Music Technology
Minor: Sound Design

- ◆ Sophia Jane Burnham-Lemaire
- ◆ D. Avery Devine
- ◆ Emily M. Gallagher
- ◆ Caleb S. Glickman

Minor: Conducting

- ◆ Russell H. Holbert *

- ◆ Colleen McGovern

- ◆ Robert A. Raso

Minor: Business Administration

- ◆ Sydney J. Roslin

- ◆ Joseph J. Sandler
- ◆ Brielle M. Stovall
- ◆ Mark Tamvakis

Jacqueline Anne Tardanico *

BACHELOR OF SCIENCE**Music and Technology**

Eugene Yuqing Li

Ken Preiser

Minor: Computer Science

MASTER OF MUSIC**Composition**

Ramin Akhaviyou

Kyle Barnes

Jonathan Cavell

Ziyu Wang

Music Education

Jingyan Han

Jingyi Hong **

Qinyu Xiong

Jieying Zhang

Performance (Bassoon)

Elizabeth Mae Devonshire

Performance (Clarinet)

Alexander Athitakis

Julian Andres Bohorquez Triana

Tony Mai **

Joseph Mansfield

Joseph Miller

Andrew Muller

Zackary Neville

Performance (Double Bass)

Cody Roseboom *

Mark Stroud

Hiroki Yuasa

Performance (Euphonium)

Abigail Lannan

Performance (Flute)

Phoebe Grace Robertson

Performance (Oboe)

Evan Tegley

Performance (Percussion)

Matthew Charles Altomare *

Justine Matthew Gingrich

Performance (Piano)

Alejo Andres **
Yue Hao
Du Hui

Performance (Saxophone)

Benjamin Morris

Performance (Trombone)

Dustin Grimes
Kevin Lin
Dallas Arlo Long
Hannah Aleka Lorber *

Performance (Trumpet)

Griffith Bernardon Gentilcore
Justin Kohan
Zachary Marino

Performance (Tuba)

Eric William Black
Brian Kelley

Performance (Viola)

Rizwan Jagani
Angela-Maureen Nagem

Performance (Violin)

Victor Avila Luvsangenden
Xiang Fang
Yalyen Savignon
Shuang Yang

Performance (Voice)

Vincent Angelo
Daniel King **
William Ottow
Ivan Plazačić
Alexander James Taylor
Taylor Troyer

MASTER OF SCIENCE

Music and Technology

Zheng Jiang
Steven Lewis Krenn
Anirudh Mani
Ziyun Peng
Nicholas Pourazima *
Mingyuan Yu **
Yixuan Zhang **

STUDENT-DEFINED MAJORS

BACHELOR OF ARTS

Dynamic Media

Roman J. Baiocco

**Experimental Digital Media and
Cognitive Studies**

Adrienne M. Cassel **

Interactive Art and Technology

◇ Tatyana Mustakos

Interactive Digital Media

Alexander B. Woskob

Sound Design & Production

◆ Joseph Santillo
Minor: Game Design

Dietrich College of Humanities and Social Sciences

DEAN OF THE COLLEGE

Richard Scheines

DEAN OF CARNEGIE MELLON UNIVERSITY IN QATAR

Michael A. Trick

CENTER FOR THE NEURAL BASIS OF COGNITION

Barbara Shinn-Cunningham, Director of CMNI and
Co-Director of CNBC

ECONOMICS

Christopher Sleet, Head of the Program

ENGLISH

Andreea Deciu Ritivoi, Head of the Department

HISTORY

Donna Harsch, Head of the Department

INFORMATION SYSTEMS

Joseph S. Mertz Jr., Interim Director of the Program

INSTITUTE FOR POLITICS AND STRATEGY

Kiron K. Skinner, Director of the Institute

MODERN LANGUAGES

Susan Polansky, Head of the Department

PHILOSOPHY

David Danks, Head of the Department

PSYCHOLOGY

Michael Tarr, Head of the Department

SOCIAL AND DECISION SCIENCES

Linda Babcock, Head of the Department

STATISTICS AND DATA SCIENCE

Christopher Genovese, Head of the Department

CENTER FOR THE NEURAL BASIS OF COGNITION

DOCTOR OF PHILOSOPHY

Yuanling Li **

Neural Dynamics And Interactions in
the Human Ventral Visual Pathway
Advisor(s): Avniel Ghuman, Max G'Sell

DIETRICH COLLEGE INTERDISCIPLINARY

BACHELOR OF SCIENCE

Information Systems

Amer Javed Ahmad

Sufia Akhter

Reem Abdulrahman Al-Emadi
Minor: Arabic Studies

- ◆ Abdulaziz Abdulhameed
Al-Haddad **

Amna Abdulla Ali
Minor: History

Wadha Mohamed A.M. Al Jassim **

Mohammed Yaser H.B. Al-Khuzaei **
Minor: History

Noof Eisa Al-Kuwari

Maryam Abdulla Al-Maadeed
Minor: History

Yahya Al-Makadma

Maha Hamad Al-Marri

Minor: Business Administration

Aisha Ali Nasser A. Al-Misnad

Minor: Business Administration

Al-Dana Ahmed Al-Mohannadi

Minor: Graphic Design
(Student-Defined Minor)
Minor: History

Reem Hamad Al-Mohannadi *

Dana Abdulmajeed Al-Sheeb

Minor: Arabic Studies

Aldana Mohammed Al-Sulaiti

Minor: History

Nicole N. Ang

Additional Major: Statistics
and Machine Learning

Obed Appiah-Agyeman

Additional Major: Human-
Computer Interaction

- ◆ Alex Bainbridge **
Minor: Computer Science

- ◆ Philip Baker

- ◆ Sydney R. Bauer

Minor: Animation and Special Effects

- ◆ Shubhangi Bhotika

Minor: Computer Science
Minor: Machine Learning

- ◆ Karan S. Bokil **

Evan A. Byrd

- ◆ Chih-Sen Chang **

- ◆ Christie Chang
Minor: Engineering Studies
Minor: Human-Computer Interaction

- ◆ Justin Y. Chang **
Additional Major: Statistics
and Machine Learning

- ◆ Tiffany H. Chen
Additional Major: Human-
Computer Interaction

- ◆ Winston P. Chu

- ◆ Kenneth I. Cohen
Bernard E. Decelian *

- ◆ Tian Dong
Additional Major: Human-
Computer Interaction
Minor: Business Administration
Minor: Engineering Studies

- ◆ Walter B. Donnellan

Randy D. Epouhe

Devin B. Fan

Additional Major: Computer Science

Juliann B. Fields

Minor: Game Design
Minor: Human-Computer Interaction

John Foley

Additional Major: Statistics
and Machine Learning

Eishaank Gakhar

Graciela Garcia

Minor: Business Administration

Minor: Innovation and Entrepreneurship

◆ **Muhammad Ibrahim Ghaus**

Minor: History

◆ **Warren Glasner**Additional Major: Human-Computer Interaction
Minor: Physical Computing◆ **Ameeshi Goel**Minor: Business Administration
Minor: Human-Computer Interaction◆ **Pavan K. Gollapalli**◆ **Karan N. Gugle**◆ **Arnav Gupta ****

Minor: Human-Computer Interaction

◆ **Brandon Hong**◆ **Xiaorui (Amber) Hu**

Additional Major: Business Administration

◆ **Joshua Z. Huang**

Minor: Business Administration

◆ **Xiao Huang**

Additional Major: Computer Science

◆ **Dylan C. Hyun**Additional Major: Statistics
Minor: Human-Computer Interaction◆ **Iram Irshad Baqri**◆ **Arnav Jain ****Minor: Business Administration
Minor: Economics◆ **Youce Ji**Additional Major: Statistics and Machine Learning
Minor: Computational Finance◆ **Siting Jin ****Additional Major: Human-Computer Interaction
Minor: Computer Science◆ **Roman A. Kaufman**

Minor: Computer Science

◆ **Andrew Kim**

Additional Major: Human-Computer Interaction

◆ **Lee Hyun Kim**

Additional Major: Human-Computer Interaction

◆ **Devansh Kukreja**

Additional Major: Computer Science

◆ **Isha R. Laad**

Minor: Business Administration

◆ **Alec Hunter Lam**

Minor: Computer Science

◆ **Inhyuk Lee**

Minor: Computer Science

◆ **Frank Liao**

Minor: Human-Computer Interaction

◆ **Amy Diane Lin**Additional Major: Human-Computer Interaction
Minor: Business Administration◆ **Manuel F. Lopez**

Additional Major: Chinese Studies

◆ **Yingjing Lu**

Minor: Computational Finance

◆ **Julia J. Luo**Additional Major: Human-Computer Interaction
Minor: Design◆ **Fahim Mahdi**◆ **Hassan Nasser Marafih**◆ **Rachel Claire Marella**

Minor: Psychology

◆ **Fletcher R. Marsh**

Minor: Computer Science

◆ **Penelope S. McKeefry**

Minor: Business Administration

◆ **Danish Memon**

Minor: Psychology

◆ **Hera Miao**Minor: Business Administration
Minor: Media Design◆ **Svayam Mishra ***◆ **Fareeduddin Mohammed ****◆ **Bisma Munawar**

Minor: Business Administration

◆ **Hasan Naveed**Minor: Business Administration
Minor: Professional Writing◆ **Alexander T. Nelson**

Minor: Engineering Studies

◆ **Ashvin V. Niruttan ****

Minor: Economics

◆ **Stephanie Pang**◆ **Sang Hyun Park**

Additional Major: Human-Computer Interaction

◆ **Katharine Amanda Phelps**

Minor: Business Administration

◆ **Emily Porat**

Minor: Human-Computer Interaction

◆ **Umair Waheed Qazi ****◆ **Mosammat Samiha Sadeka**Minor: Computer Science
Minor: Mathematical Sciences◆ **Dylan Schwartz**

Minor: Business Administration

◆ **Ritika Srivastava**◆ **Aathreya Thuppul ****

Minor: Business Administration

◆ **Sarah S. Wang**

Minor: Game Design

◆ **Jonathan R. Wihl**◆ **Minnie Wu**Minor: Business Administration
Minor: Human-Computer Interaction
Minor: Music◆ **Linda Xia**

Additional Major: Human-Computer Interaction

◆ **George Yao**

Minor: Computer Science

◆ **Alina Yu**

Minor: Human-Computer Interaction

◆ **Masooma Zehra**

Minor: Psychology

◆ **Shirley Zhou**Minor: Business Administration
Minor: Human-Computer Interaction◆ **Ruiqi Zhu**Additional Major: Human-Computer Interaction
Minor: Computer Science**ECONOMICS****BACHELOR OF ARTS****Economics**◆ **Asim K. Atkinson**◆ **Katherine A. Boyle**

Minor: Photography

◆ **Emma T. Frenchu**◆ **Seth E. Henry**Minor: Innovation and Entrepreneurship
Minor: International Relations and Politics◆ **Hannah Oluwamayowa Osinowo**

Minor: Business Administration

◆ **Daniela Salazar De Luna**

Additional Major: Hispanic Studies

BACHELOR OF SCIENCE**Economics**◆ **Domenico Octavio Barbieri Giraldo ****◆ **Alexander Bendyk**

Additional Major: International Relations and Politics

◆ **Amelia Saner Gilson**Minor: Biomedical Engineering
Minor: Mathematical Sciences◆ **David Hua**

Additional Major: Computer Science

◆ **Eric C. Huang**Additional Major: Chinese Studies
Minor: Business Administration◆ **Hanyu Jiang ****

Minor: Business Administration

◆ **Zichen Liu ****◆ **Melissa Lu**◆ **Jules Ann Ross**

Additional Major: International Relations and Politics

◆ **Ana Victoria Rottaro Castejon ****

Additional Major: Policy and Management

◆ **Gordon A. Wissinger**

Minor: Biomedical Engineering

◆ **Megan Yelsangikar**

Minor: Business Administration

Economics and Mathematical Sciences◆ **Noopura Herle ******ENGLISH****BACHELOR OF ARTS****Creative Writing**◆ **Jonathan M. Dinerman ****◆ **Emma J. Flickinger**Additional Major: Professional Writing
Additional Major: Statistics◆ **Julie N. Heming**

Additional Major: Professional Writing

◆ **Sydney J. Roslin**

- ◆ **Barbara Soques**
Additional Major: Human-Computer Interaction
Minor: Game Design
- ◆ **John W. Sprong**
Minor: Game Design
- Chie K. Wach**
Additional Major: Physics

English

- Jacob L. Bentley**
Additional Major: Creative Writing
Additional Major: Social and Political History
- Stephanie Guzik ****
Additional Major: Professional Writing
- ◆ **Ariana Martine Mapua ***
Additional Major: Economics
- Kevin Nelson ****
Minor: Film and Media Studies

Professional Writing

- ◆ **Autumn R. Armega-Finger**
Additional Major: Creative Writing
Additional Major: Global Studies
- ◆ **Emily E. Giedzinski ****
Autumn Hair
Isabella J. Hong
Minor: Design
- ◇ **Valene K. Mezmin**
Additional Major: Physics
- Eunju L. Pak**
Minor: Cognitive Neuroscience
Minor: Design for Learning
- Jill Rae Perkins**
- ◆ **Abigail J. Salmon**
Additional Major: German Studies
Minor: Linguistics
- Levi Soler ****
- Jessica Chia-Wen Tsai**
- Cameron Wilkerson**
Minor: Hispanic Studies
- ◆ **Valerie Jun-Tsing Yam**
Minor: Design for Learning
Minor: Human-Computer Interaction
- Bernice Yu**
Minor: Design

BACHELOR OF SCIENCE

Technical Writing and Communication

- ◆ **Vidya Palepu**
Additional Major: Creative Writing
Minor: Film and Media Studies
- Sydney P. Pujadas**
Minor: Business Administration
Minor: Sound Design
- ◆ **Aisha A. Rashid**
Minor: Biomedical Engineering
- James F. Wheaton**

MASTER OF ARTS

Literary and Cultural Studies

- McKenna Demek**
- Daniel J. Evans**
- Chanelle Greene**
- Emily Motin**
- Lisa Thanh Pham**
- Mary Margaret Ryan**
- Luke Wade Thompson**
- Katherine S. Tucker ****

Professional Writing

- Sarah Elizabeth Bender**
- Katherine Leigh Eckenwiler ****
- William Jay Goldby ****
- Allison Hodsdon**
- Cody James Januszko ****
- Jessica E. Keast**
- Alexis Mae Morrell ****
- Emily A. Nagin**
- Ann Elizabeth Rucker ****
- Ricardo Wiesner ****
- Jiexi Wu ****

Rhetoric

- Lea Subashini Allirajah**
- Pamela Batzel**
- Julia Anne Bennett**
- John Paul Capresecco II**
- Margaret Laird**
- Elisabeth Anne Loveland**
- Aaron Thomas Schmelzer**
- Brian Allen Shouse**
- Colleen Dian Storm**
- Amy Rebecca Thompson**
- Laine Elyse Weatherford**

DOCTOR OF PHILOSOPHY

- Julia Gardner Deems ***
Achieving Mental Health Parity:
A Rhetorical Analysis of a Social Change
Advisor(s): Linda Flower
- Jacob Goessling**
Appalachian Coal Culture and the
Residue of Fossil Capital, 1968-Present
Advisor(s): Kathy Newman
- William I. Penman ***
The Exposure Side of Rhetoric:
A Participatory Study of Aspirational
Rhetoric of Anti-Racism
Advisor(s): Linda Flower

HISTORY

BACHELOR OF ARTS

Global Studies

- ◆ **Sarah M. Boyle**
Minor: French and Francophone Studies
- ◆ **Margaret Sophia Mertz**
Additional Major: Creative Writing
Minor: Animation and Special Effects
Minor: Film and Media Studies
- ◆ **Vera J. Schulz**
Minor: Innovation and Entrepreneurship
Minor: Intelligent Environments
- ◆ **Diana Y. Yuh**

Social and Political History

- Maria A. Barr**
- Luis Miguel Espinosa-Da Silva**
- Michael William Newman**
Minor: Sociology

DOCTOR OF PHILOSOPHY

- David S. Busch**
The Civic Revolution on Campus:
Student Activism and the Politics
of Service Learning
Advisor(s): Nico Slate
- Susan C.I. Grunewald**
German Prisoners of War in the Soviet
Union: Life, Law, Memory, 1941-1956
Advisor(s): Wendy Goldman
- Mark Thomas Hauser**
All the Comforts of Hell: Doughboys
and American Mass Culture
in the First World War
Advisor(s): Scott Sandage
- Clayton Vaughn-Roberson**
Fascism with a Jim Crow Face:
The National Negro Congress
and the Global Popular Front
Advisor(s): Nico Slate
- Dawn Michele Winters ****
"The Ladies Are Coming!":
A New History of Antebellum Temperance,
Women's Rights, and Political Activism
Advisor(s): Lisa Tetrault

INSTITUTE FOR POLITICS AND STRATEGY

BACHELOR OF SCIENCE

International Relations and Politics

- ◆ **Julia Lynn Adams**
Minor: Policy and Management
- John A. Ciaccio**
- Philip J. DeCicco**
Minor: Arabic Studies
Minor: Decision Science
- Daniel John DeLuca**
Additional Major: Decision Science
- ◆ **Jure C. Erlic**
Additional Major: Social
and Political History

Antonio R. Freiria

- ◆ **Evan M. Glauberman**
Additional Major: Social and Political History
Minor: Arabic Studies

Kimberly M. Huang
Minor: Animation and Special Effects
Minor: Game Design

Adedamola T. Orimolade
Minor: Creative Writing

- ◆ **Guthrie F. Scrimgeour**
Minor: Creative Writing
- Sophia Elizabeth Suarez**
Additional Major: French and Francophone Studies
Minor: Art
Minor: Social and Political History

- ◆ **Sahana R. Thirumazhusai**
Additional Major: Social and Political History

Prajay Niraj Tiple *

- ◆ **Lucy Truschel**
Additional Major: Psychology
- Casey Wong**
Minor: Chemistry

MASTER OF SCIENCE

International Relations and Politics

Ian J. Asenjo
Kellen M. Carleton
Michael C. Gormley
Raaga R. Kalva
Alex S. Lin *
Jacqueline M. Puschmann
Colin Tait

MODERN LANGUAGES

BACHELOR OF ARTS

Japanese Studies

Ren Simms

DOCTOR OF PHILOSOPHY

Tianxu Chen
The Contribution of the Morphological Awareness to World-Meaning Inference in L2 Chinese: From Perspectives of Language-Related and Learner-Related Factors
Advisor(s): Keiko Koda

Frank M. Dolce
Expanding Discourse Options in the Foreign Language Classroom: Teaching Turn-Taking Norms to Enhance Interactional Competence in an Advanced Mandarin Class
Advisor(s): Remi Adam van Compernelle

Mamoru Hatakeyama
Relative Contributions of L1 and L2 Resources to Semantic Gap Filling at the Word Level in L2 Japanese Reading: Lexical Inferencing of Two-Character Kanji Compounds
Advisor(s): Keiko Koda

Xiaofei Tang

Digital Game-Based Learning for L2 Chinese Formulaic Expressions
Advisor(s): Remi Adam van Compernelle

PHILOSOPHY

BACHELOR OF ARTS

Ethics, History and Public Policy

- ◆ **Makenzie L. Donaldson ****
Minor: Politics and Public Policy
- ◆ **Allison M. Guzman**
Minor: Politics and Public Policy
Minor: Professional Writing
- Jelani Muhammad Ali Parrish ****
Minor: Business Administration
- Jonathan Joseph Angelo Rodrigues ****
Minor: Business Administration

Linguistics

Sabrina Clarke
Minor: Film and Media Studies

Amanda Jean Phil
Additional Major: Japanese Studies

Katherine Polhemus

- ◆ **Katherine J. Zhang**
Additional Major: Chinese Studies

Philosophy

- ◆ **Chih Yuan William Chang ****
Additional Major: Ethics, History, and Public Policy

BACHELOR OF SCIENCE

Ethics, History and Public Policy

Amaya Taylor

Logic and Computation

Garrison L. McMullen **
Minor: Sound Design

Gregory L. Trost

Ashley Marie Watt
Minor: Physics

MASTER OF ARTS

Philosophy

Amelia von Gemmingen Smith
Alec Walker

MASTER OF SCIENCE

Logic, Computation and Methodology

Maria Alejandra Arciniegas Gomez

Suel Kee Baek

Mario Carniero

Biwei Huang *

Adam Millar

Caitlin G. Parker

Zesen Qian

Naji Shajarisales **

Sarah Elizabeth Viera-Patron

Shuyan Wang

DOCTOR OF PHILOSOPHY

Patrick Walsh
A Categorical Characterization of Accessible Domains
Advisor(s): Wilfried Sieg

PSYCHOLOGY

BACHELOR OF ARTS

Psychology

- Naomi Ruth Berman ****
Additional Major: Linguistics
Minor: Human-Computer Interaction
- Ha Min Cho**
Additional Major: Business Administration
- Lynzky Deleon ***
- ◆ **Jared Jory-Geiger**
Additional Major: Philosophy
- ◆ **Rita Kalar**
Additional Major: Linguistics
- ◆ **Brielle M. Stovall**

BACHELOR OF SCIENCE

Cognitive Science

- Peter Boyland**
Additional Major: Computer Science
- ◆ **Mingjun Duan**
- ◆ **Madeline Bober Gardner**
Additional Major: Human-Computer Interaction
Minor: Hispanic Studies
- ◆ **Sean D. Kim**
- ◆ **Rae Lee Lasko**
Additional Major: Human-Computer Interaction
Minor: Design
- James P. Lexas**
- ◆ **Felix C. Liu**
Additional Major: Human-Computer Interaction
- ◆ **Yuling Liu**
Minor: Human-Computer Interaction
- Sean Q. Moore**
Minor: Computer Science
- Nicole Pinto ****
Minor: Human-Computer Interaction
- ◆ **Pranjali Rathi**
- Rameez Remsudeen ****
- Saloni Saxena**
Minor: Biomedical Engineering
- ◆ **Yingli Y. Sieh**
Additional Major: Human-Computer Interaction
- Emilio Vargas Vite**
Minor: Learning Media

Angela Wang
Minor: Learning Media

- ◆ Alice Zheng
Minor: Chemistry
- ◇ Yishan Zhou

Neuroscience

Tessa E. Allen
Minor: Hispanic Studies

- ◇ Kaily A. Bruch
- Ji Heon Han
Minor: Art
- Monica M. Lee
Minor: Creative Writing
- ◇ Prachi Mahableshwarkar
Minor: Human-Computer Interaction
- Meera V. Patel
Additional Major: Philosophy
Minor: Ethics
- Marina Selenica
- Alexis A. Willis

Psychology

Alexander Aboagye-Mensah **

Jiwon Ban
Minor: Hispanic Studies

Smriti S. Chauhan *
Minor: Cognitive Neuroscience

- ◇ Yoobin Chee
Minor: Gender Studies
- Amy Y. Chen
- ◆ Allison C. Chu
- Folasade B. Idera **
- Hannah Soyeon Kim
Additional Major: Human-Computer Interaction
- Karen Jiyeon Kim
Minor: Media Design
- ◆ Nahyun Kwon
Additional Major: Human-Computer Interaction
- ◆ Daya Lee **
Additional Major: Human-Computer Interaction
- John Leigh
- ◇ Jieming (Lewis) Li
Minor: Cognitive Neuroscience
- Katie Y. Lim
- Priscilla A. Medor **
Minor: Cognitive Neuroscience
- Morgan E. Morrison
Minor: Music
- Caroline M. Orrico
- Holly Haeun Park
Minor: Human-Computer Interaction
- ◇ Jordan Romah
Additional Major: Creative Writing
- ◇ Isabella R. Starvaggi
Additional Major: Statistics

- ◆ Thomas Serban Von Davier
Additional Major: Human-Computer Interaction

- ◆ Zhongmin Xie
Additional Major: Human-Computer Interaction

MASTER OF SCIENCE

Psychology

Brian Nicholas Chin
Elliot Grayson Collins *
Emily Rose Keebler *
Amedee Marchand Martella *
Robert Vargas

DOCTOR OF PHILOSOPHY

Elliot Grayson Collins
Neural and Representational
Origins of Visual Expertise
Advisor(s): Marlene Behrmann

Kevin Jarbo *
A Corticostriatal Mechanism for
Integrating Subjective Value into Processes
Advisor(s): Timothy Verstynen

Katilyn J. Mascatelli *
Perceptions of Black and White Men:
Explanations of and Betting on Success
Advisor(s): Vicki Helgeson

Casey L. Roark
Category Learning is Constrained by
Training Context and Prior Experience
Advisor(s): Lori L. Holt

Juliet Shafto
Visual Perception of Shape-Contour Type
Advisor(s): Michael Tarr

SOCIAL & DECISION SCIENCES

BACHELOR OF ARTS

Behavioral Economics, Policy and Organizations

- ◆ Zhengrui Cheng
Minor: Economics
Minor: Politics and Public Policy
- ◇ Heather N. Graci
Additional Degree: Psychology
- Alex Taro Miller
Minor: Business Administration

BACHELOR OF SCIENCE

Decision Science

Jennifer Baik
Minor: Engineering Studies

Lula E. Beresford-Banker *
Jessica Chang

Jungin Choi
Additional Major: Statistics
Minor: Business Administration

Christine Chung
Minor: Statistics

- ◆ Rose A. Ciriello
Additional Major: Human-Computer Interaction
Minor: Hispanic Studies

Sonia H. Del Rivo
Additional Major: Social and Political History

Yaramo Dione
Additional Major: Creative Writing

- ◆ Sihan Dong
Minor: Human-Computer Interaction
Minor: Politics and Public Policy
- ◆ Shivani Goel
Additional Major: Statistics
- Rosana E. Guernica
- Alison C. Hoffman **
Additional Major: Ethics, History, and Public Policy
- Hanna Jang
Minor: Business Administration
Minor: Human-Computer Interaction
Minor: Media Design
- ◇ Ben J. Kaplan
Minor: International Relations and Politics
Minor: Policy and Management
- ◆ Saachi Khurana
Minor: Business Administration
Minor: Human-Computer Interaction
- Andrew K. Kim
Additional Major: Policy and Management
- Matthew Kim
Additional Major: Business Administration
- AnnaMarie R. Kun
- Joanne S. Lee
Minor: Business Administration
- ◆ Lily Katherine Marty
Additional Major: Psychology
- ◆ Paige C. O'Riordan **
Additional Major: Ethics, History, and Public Policy
Minor: Creative Writing
- Jaebn Park
Additional Major: Statistics
- Micah Sara Rabin
Additional Major: International Relations and Politics
Minor: Innovation and Entrepreneurship
- ◆ Margaret Claire Reager
Additional Major: Hispanic Studies
- John Thomas Shaban Jr. **
Minor: Business Administration
Minor: Politics and Public Policy
- ◆ Crystal D. Song
- ◆ Arielle W. Spikes
Minor: Policy and Management
- Sinorti Iris Stegman *
Additional Major: Policy and Management
- ◆ Benjamin Stone
Minor: Human-Computer Interaction
- ◆ John G. Verser
Additional Major: Russian Studies
Minor: Politics and Public Policy
- ◆ Kenneth M. Sterling Wells **
- ◆ Shawn L. Weng
Additional Major: Statistics

Jessica Zou Wu
 Vivian G. Yan
 Additional Major: Behavioral
 Economics, Policy, and Organizations

Policy and Management

- Nicholas G. Chmielewski *
 Minor: Business Administration
 Minor: Social and Political History
- ◆ Sonia Teresa de los Reyes **
 - ◆ William Lane Griswold Dively *
 Minor: Politics and Public Policy

Connor M. Hayes
 Minor: Architecture

Julie Kim
 Additional Major: Statistics

Jasper Wang **

 - ◆ Michael Zhu
 Minor: Business Administration

MASTER OF SCIENCE

Behavioral Decision Research

Christina Marie Boyce-Jacino
 Erin Jessica Carbone
 Yana Litovsky
 Eric Powers Silver
 Joachim H. Talloen **
 Zachary Daniel Wojtowicz

Psychology and Behavioral Decision Research

Keela Thomson

Social and Decision Sciences

Sabina Sloman

DOCTOR OF PHILOSOPHY

Lynn Conell-Price *
 The Behavioral Economics of
 Undersaving: Evidence from Field
 Experiments on Employee 401(k)
 Enrollment and Savings Decisions
 Advisor(s): Saurabh Bhargava

David Hagmann **
 The Policy Consequences of Information:
 Three Essays on Being (Un)Informed
 Advisor(s): George Loewenstein

Kelly A. Matula **
 Information Relevance for Informed
 Consent to Clinical Trials: Patients,
 Advisors, and Clinicians
 Advisor(s): Baruch Fischhoff

STATISTICS AND DATA SCIENCE

BACHELOR OF SCIENCE

Economics and Statistics

- Andre M. Aquije-Flores
- ◆ Samuel R. Bolig **
 Minor: Business Administration
 - ◆ Allysa Y. Dong **
 - ◆ Zeyan Du
 Charles J. Gauthey
 - ◆ Tanay Godara
 Minor: Business Administration
 - ◆ Melody Han
 Minor: Machine Learning
 - ◆ Brandon Hao **
 Additional Major: Business Administration
 - ◆ Rahul G. Iyer
 Minor: Global Systems and Management
 - ◆ Long Jiang **
 - ◆ Terry Kim
 Minor: Business Administration

Kaushik Murali
 Minor: Computer Science

Julian Gabriel Nelson
 Minor: Creative Writing

 - ◆ William R. Shancey Jr.
 - ◆ Jia Shi
 Minor: German Studies
 - ◆ Adam Tucker
 - ◆ Deepak Vanjani
 Minor: Psychology
 - ◆ Andrew F. Wissinger
 Additional Major: Business Administration
 - ◆ Jordan H. Wong **
 Minor: Chinese Studies
 - ◆ Chong Xu

Statistics

- David A. Azagury
 Minor: Business Administration
- ◆ Yuan Bing
 Minor: Business Administration

Lawrence Chen
 Minor: Business Administration

Kushal Dave
 Minor: Biomedical Engineering

Mary D. Garrett
 Minor: International Relations and Politics

 - ◆ Zachary P. Goldstein

Sara N. Jahanian
 Zoeanne Juang **
 Donghun Kang

Jinhee Lee
 Minor: Game Design

Minami Alice Makino
 Reed H. Marques
 Alexander A. Messam
 Minor: Game Design
 Minor: Mathematical Sciences

Antara Mondal **
 Minor: Business Administration

Krishna S. Rao

Ina R. Rastegar
 Additional Major: French and
 Francophone Studies

Sean P. Reidy

Mary M. Safy
 Additional Major: Human-
 Computer Interaction
 Minor: Design

Rohini Sinha **
 Minor: Business Administration

Gordon Y. Wang

- ◆ David Samuel White
 Minor: Business Administration
 Minor: Philosophy

- ◆ Catherine Xu

- ◆ Yijia Zhang

Statistics (Mathematical Sciences Track)

Brandon S. Cobb
 Additional Major: Mathematical Sciences
 Minor: Computer Science

Statistics and Machine Learning

- Adin Adler
- Stephanie Z. Bao **
 Additional Major: Human-
 Computer Interaction
- Emily Yi-Ann Chen
 Minor: Economics
- Kayu Choy
- John L. Curcio
 Minor: Computer Science
 Minor: Mathematical Sciences
- Celine S. Delaunay
 Additional Major: Creative Writing
- ◆ Malaika Handa **

Karim Helmy
 Minor: Computational Biology

Jeffrey M. Ho
 Additional Major: Computer Science

 - ◆ Weng Shian Ho

Christopher James Hwang
 Minor: Music Technology

Zhenghan Jin
 Minor: Neural Computation

Inez Khan
 Minor: International Relations and Politics
 Minor: Physics

Francis Robert August Kovacs

Lubhaan Kumar

 - ◆ Eun Kyung Kwon
 Additional Major: Cognitive Science
 Minor: Computer Science

Harrison G. Landis
 Daniel Lee **

Sarah Danielle Mallepalle **
 Christian Alexander Manaog
 Minor: Media Design

- ◆ **Amanda Monteavaro**
Minor: Neuroscience
- ◆ **Rohan D. Nagalkar ****
Additional Major: Business Administration
- Anirudh A. Narain ****
Ata Numanbayraktaroglu
- ◆ **Mason B. Paccione**
Minor: Economics
Minor: Neural Computation
- ◆ **Stephanie Pang**
Kabir A. Parekh
Jake L. Parker
Minor: Computer Science
- Akash R. Patwal**
Minor: Computer Science
- Tejas Jay Prakash**
- ◆ **Shreya Punya ****
Minor: Business Administration
- Ricardo Elias Roche Sillery**
- ◆ **Maria A. Rodriguez De La Cruz**
- ◆ **Naveen W. Shankar**
Additional Major: Decision Science
- ◇ **George Ion Stoica**
- ◆ **Tianqi Tang**
Minor: Computational Finance
- Elliott Toy**
Minor: Business Administration
- Kendrick H. Tse**
Minor: Human-Computer Interaction
- ◆ **Chenxi Wang**
Minor: Decision Science
- ◆ **Eric Wang**
Minor: Economics
- ◆ **Yu Wu**
Minor: Economics
- ◆ **Ziniu Wu**
Edgar S. Xi
- ◆ **Grant Y. Xu**
- ◆ **James Yan**
Minor: Human-Computer Interaction
- Theo Yannekis**
Minor: Computer Science
- Seungyeon Yoo**
Minor: Economics
- ◆ **Reed R. Zhang**
Yufan Zhang
Minor: Computer Science

MASTER OF SCIENCE

Statistics

Heejong Bong
Theresa Susanna Gebert
Maria Jahja
Irwin Hollar McNeely
Ronald Yurko

MASTER OF STATISTICAL PRACTICE

Statistical Practice

Graham Arthur
Ji Eun Cha
Nat M. DeFries
Adrian Del Bosque
Matthew Forte
Ruiyang Gan
Daiheng Gao
Steve Sangyol Han
Wren Hemmel
Ansh Hirani
Yingzhong Hu
Sung Jin Hwang
Yudi Jin
Jun Hee Kim
Terence Jin Wook Kwak
Soyoung Lee
Yifan Leng
Divyasree Madisetty
Egan H. McClave
Christian Rodriguez
Sarah Tanjung
Paige A. Thompson
Walter L. Thornton
Aijin Wang
Huige Wang
Peter Wu
Zhaoyu Zhang
Zhuoya Zhang
Ziruo Zhang

DOCTOR OF PHILOSOPHY

Philipp Lukas Gregor Burckhardt
Building the Data Science
Laboratory: A Web-Based
Framework for Modern Statistics
Advisor(s): Alexandra Chouldechova,
Christopher Genovese, Rebecca Nugent,
Rema Padman, Howard Seltman

Sangwon Hyun **
Post-Selection Inference for Change-point
Detection and Its Scientific Application
Advisor(s): Max G'Sell,
Alessandro Rinaldo, Kathryn Roeder,
Ryan Tibshirani, Larry A. Wasserman

Jisu Kim **
Statistical Inference for Geometric Data
Advisor(s): Alessandro Rinaldo,
Larry A. Wasserman

Fuchen Liu
Dynamic Network and the
Developing Brain: Smoothing
and Change Point Detection
Advisor(s): David Choi, Rob Kass, Jing Lei,
Kathryn Roeder, Cosma Shalizi

Robert S. Lunde **
Bootstrapping and Sample Splitting
Under Weak Dependence
Advisor(s): Alessandro Rinaldo,
Cosma Shalizi, Valerie Ventura

Francesca Matano

Model Selection for Inverse
Estimation in Linear Regression,
with Application to Neuroscience
Advisor(s): Sivaraman Balakrishnan,
Steve Chase, Rob Kass,
Cosma Shalizi, Valerie Ventura

Taylor Gene Pospisil

Conditional Density Estimation for
Regression and Likelihood-Free Inference
Advisor(s): Ann Lee,
Peter Freeman, Chad Schafer

Alexander Edward Reinhart *

Point Process Modeling with
Spatiotemporal Covariates
for Predicting Crime
Advisor(s): William F. Eddy,
Wilpen L. Gorr, Joel Greenhouse,
John Lehoczy, Cosma Shalizi

Lee Fredric Richardson

The Sliding Window Discrete
Fourier Transform
Advisor(s): William F. Eddy, Max G'Sell,
John Lehoczy, Chad Schafer, Sam Ventura

Michael H. Spece Ibanez **

Competitive Analysis for Machine
Learning and Data Science
Advisor(s): Joseph Kadane,
Barnabas Poczos, Cosma Shalizi

Daren Wang *

Topics in High Dimensional Statistics
Advisor(s): Sivaraman Balakrishnan,
Christopher Genovese,
Alessandro Rinaldo, Ryan Tibshirani,
Larry A. Wasserman

Heinz College of Information Systems and Public Policy

DEAN OF THE COLLEGE

Ramayya Krishnan

SCHOOL OF INFORMATION SYSTEMS AND MANAGEMENT

Andrew Wasser, Associate Dean

SCHOOL OF PUBLIC POLICY AND MANAGEMENT

Jacqueline Speedy, Associate Dean

INFORMATION SYSTEMS AND MANAGEMENT

MASTER OF SCIENCE

Information Security Policy and Management

Ivan Matthew Alvarado
Lila Danielle Blum
Ama Konama Boateng
Jessica Taylor Brewer
Mark James Dandrea
John Earl Dorben
Vasavi Hejjaji
Chelsea Hortense Hermond
Leo Ho-Tin Ip
Minseok Kim
Bradley Justin Levine
Jennifer Ryan Luptak
Krishna Priyusha Maddipatla
Marisa Edna-Marie Midler
Claire Margaret Moynahan
Karttik Chandra Panda
Daniel Eduardo Ramirez-Calderon
Ravneet Singh
Abhinav Srinivasaraghavan
Brandon Vinh Ta
Joshua Robert Vasko
Michaela Ann Webster
Evan Nicholas Wehr
Zhuoxue Wu
He Zhu

MASTER OF INFORMATION SYSTEMS MANAGEMENT

Business Intelligence and Data Analytics

Monica Annette Anthony **
Jaagrit Arora **
Madhumitha Babushankar **
Amanda Diane Baker
Alex Jonathan Caico

Royce Chan
Ya-Ting Chang **
Yu Cheng Chang **
Han Chen **
Zhexin Chen
Sathwik Chenna Madhavuni **
Erica Lauren Collins
Dylan Michael Connor **
Shivalik Daga
Sankalp Sanjeev Devasthali **
Nikhil Devidas Devnani **
Anupam Dewan **
Siena Duplan **
Ghazal Erfani
Nadine Fares **
Jose Daniel Fernandez Davila **
Mridul Singh Gangwar
Anitha Ghali
Gaurij Pradeep Hardikar
Garvit Harisinghani **
Hanqi He **
Michelle Hsu **
Amy Huang **
Baihui Huang **
Dheeraj Jaiman **
Meghna Dhiren Jani **
Zhuhan Jiao **
Aditya Varma Kalidindi **
Kaung Mon Khin **
Akanksha Khushboo **
Manali Jayantkumar Killedar **
Shawn Peter Leahy **
Daniel Louis Lesser
Qing Li **
Xiang Li **
Ying Lin **
Muyi Liu **
Jinjing Luo **
Evan Lyle **
Aysha Muhammad MacHingara
Aldo Marini Macouzet **

Shahzeb Mirza **
Colton M. Mouritsen
Mehroze Munawar **
Soundharya Murali **
Shruthi Muthukumaran **
Poojitha Nanduri **
Apoorva Nitsure **
Phani Krishna K. Pasumarthi
Rachitha Prabhudev **
Shounak Purkayastha **
Yuan Qin **
Andrew Whitaker Redd **
Alexander Donald Roberts **
Sheldon Rodrigues **
Anand Hanmantrao Sakhare **
Ebunoluwa Oluwasayofunmi Sanu
Karunashree Saproo **
Jonathan Marshall Seppi **
Yiyi Sha **
Amrita Sharma **
Sahib Singh
Sri Sitarama Tejendra Prabhat
Turlapati **
Benjamin John Turner
Miguel de la Salle Rousseau
Twahirwa **
Anubha Varshney **
Carlos Alberto Velasquez Restrepo
Jingying Wang **
Wei-Kung Wang **
Yiru Wei **
Chien-Ting Weng
Sijia Yao **
Yichun Katie Yao
Yushi Yao **
Yingxuan Zhai **
Jiahao Zhang **
Jianfu Zhang **
Junran Zhang **
Shuyi Zheng **
Ren Zuo **

Information Systems Management

Tushar Advani **
 Anirudh Agarwal **
 Ayushi Agarwal
 Mragank Agarwal
 Sukrit Ajmani **
 Gautham Allur Subramanya **
 Rofin Andonissamy
 Anish Arora **
 Ashish Arora **
 Harsh Baheti
 Sara Zakariya Banten
 Debalina Basu
 Min Yan Beh **
 Michael Daniel Berlet **
 Sowjanya Bhagi
 Divya Bhaskar Rao
 Amol Bhatnagar **
 Pranav Bolar **
 Yuyan Cai
 Asparsh Chandra
 Yi-Chun Chang
 Partha Pratim Chatterjee
 Kshitij Chauhan **
 Anqi Chen
 Jiabin Chen
 Sharon Chen **
 Shuning Chen
 Yi Chen
 Ying Chen
 Yuyuan Chen
 Zheshi Chen **
 Bhavya Shailesh Chhadva
 Ping-Jou Chiang
 Han-Tse Chiou **
 Jung-Hsuan Chu
 Driti Dagli
 Manali Haresh Damania **
 Xuxin Deng
 Karan Hiren Desai
 Rucha Deshmukh **
 Krishna Sandeep Dharga Rama Gopal
 Junaid Dodiha
 Yiwei Du **
 Zhengping Duan
 Aman Dubey **
 Norikazu Edogawa **
 Chong-Yu Fu **
 Junkai Fu
 Apurva Sadanand Gaikwad
 Aaditya Ganapathy **
 Shinan Gao
 Divyesh Gaur **
 Harshal Mahesh Gogri **
 Ameya Dattatreya Gokhale
 Mingfeng Gong
 Sherry Gu **

Manmin Angela Guo
 Kunal Kumar Gupta **
 Paritosh Gupta
 Shiyue He **
 Varun Hebbar **
 Dharmika Dayanand Hegde **
 Juan Pablo Hinojosa Gonzalez **
 Sammuel Hobbs
 Mingyi Hu **
 Renhao Hu
 Sihui Hu **
 Xuan Hu
 Junfeng Huang
 Yi-Anne Huang
 Yucheng Huang
 Hassaan Ijaz
 Akshay Yashwant Rai Jain
 Arihant Kumar Jain
 Priyanshi Jain
 Sheena Jain **
 Anshu Jana
 Amala Srinivas Jatar **
 Neethi Jayachandran **
 Shipra Jha **
 Hongcheng Ji
 Minghao Ji
 Wei Ji **
 Jie Jiang
 Xiaokai Jin **
 Raunak Jodhawat
 Harsh Johari **
 Isha Joshi **
 Shubhra Kabra
 Akash Kakkaragolla Manjunath **
 Aditya Kamatar
 Siddharth Reddy Kandimalla
 Pali Kanungo **
 Vineet Harshad Karkhanis
 Preethika Devi Karthikeyan
 Sharath Kashyap
 Ruchita Dilip Kasliwal
 Lama Kaysi **
 Anand Khanna **
 Minkyung Kim
 Avinash Kona
 Sai Aditya Kothakota **
 Venkat Nikhil Reddy Kowkuntla
 Sai **
 Kushagra Krishna **
 Roshan Kumar
 Sangam Pravin Kumar **
 Sukesh Kumar **
 Mahesh Kumar Srinivas **
 Guhan Kumaresan **
 Shreeya Milind Laad **
 Annapoorani Lakshmi Narayanan
 Tarl Jason Langham **
 Chia Hua Lee **

Soojin Lee
 Susuk Lee
 Ted Ernest Lee **
 Haoming Li
 Jinyi Li
 Mingyang Li
 Yanchen Li **
 Yingqi Li **
 Jyotsna Lilani
 Swaroop Lingaraj **
 Menglin Liu
 Xin-Pu Liu
 Xueting Liu
 Ying Liu **
 Yuanhan Liu **
 Zhiyang Liu
 Zizhe Liu
 Priyal Rajiv Lodaria **
 Jie Lou
 Yao Lu **
 Yuichi Mada **
 Kien Hui Mak
 Derek Mason
 Edwin William Mellett
 Siddharth Suresh Menon **
 Priyadarshini Mitra **
 Ravi Mittal
 Tania Modi
 Madhukar Mohta
 Qing Mu
 Shantanu Mukherjee **
 Keerthy Muralidharan **
 Rishab Narang **
 Disha Mahesh Nathani **
 Daisy Aatse Betungheyi Nkweteyim
 Oluwatobi Gbemisola Oladiran **
 Katarzyna Olszewska **
 Adishree Paliwal
 Zhengyu Pan
 Udisha Pande
 Saurabh Pravin Pathare
 Aditya Shrirang Patil
 Qi Peng
 Sivakorn Potisuntorn
 Yining Qian **
 Xuehan Qiao **
 Xin Qiu **
 Sonali Rajendra **
 Renjini Ramesh
 Sisi Rao **
 Mohit Rikhy
 Adarsh Saboo **
 Shreya Sahay
 Sugandha Sahay
 Aparajita Sahoo
 Madhavi Sindhu Sahu **
 Sanchit Saini

Ankit Saluja
 Rohan Abhay Sangave
 Kinjal Vipul Sanghvi
 Mansi Sushil Satam
 Syed Mehboob Askari Shah
 Amit Sharma **
 Disha Sharma **
 Shalini Sharma **
 Sudhanshu Shekhar
 Shihao Shen
 Leyang Shi **
 Sonika Rajkumar Shrivastav **
 Hardit Singh
 Prabhjot Singh
 Saaisha Singh
 Srishti Singh
 Sumit Singh
 Michael Eric Slauson **
 Pratistha Srivastav
 Rahul Srivastava
 Sushmita Subramani **
 Deepak Raj Subramanian
 Yitian Sun
 Yuqi Sun
 Zuwei Sun **
 Aditya Suresh
 Siyu Tan
 Xiaoli Tang **
 Shekhar Tanwar
 Yalu Tong **
 Anurag Tripathy
 Zhaoyang Tuo **
 Tanomi Ujjwal
 Swetha Unnava
 Swetha Shri Venkateshwaran **
 Namratha Vishwanathan
 Hongzhe Wang **
 Junlin Wang **
 Wei Wang
 Xiyao Wang
 Zexian Wang
 Nicholas DeVerle Wells
 Chu Wu
 Yi-Ju Wu
 Yue Wu **
 Jingran Xiao
 Wenxuan Xu
 Yi Xu
 Bai Xue **
 Baiqi Yan
 Jinyi Yang **
 Jiayu Yao
 Sicong Ye
 Zhenhao Ye
 Shih-Hao Yeh
 Henry Yelin **
 Yuzhe Yin

Mingzhi Yu
 Jieni Zhang
 Juwen Zhang
 Weitong Zhang
 Wenhan Zhang
 Yunyi Zhang
 Xinpeng Zheng **
 Yiling Zhong **
 Junxue Zhu
 Yuanzhen Zhu **
 Dong Zuo **

MASTER OF SCIENCE

Information Technology (Business Intelligence and Data Analytics)

Stephanie Talsma Bruno
 Rafael Buitrago **
 Anthony Villavicencio Chestnut
 James Benjamin Gianoglio *
 Daniel A. Houli
 Yuxiang Hu
 Edgar Vladimir Lozano Cabrera **
 Krupa Rajen Nagori
 Jason Maxwell Popowski **
 David Richard Robinson
 Libby Schultz *
 Georgina Tolgos

Information Technology (Business Intelligence and Data Analytics), Adelaide, Australia

Arjun Arasu *
 Fan Feng
 Liping Huang
 Abhishek Jayachandran
 Rama Kanetkar
 Jubin Katyal *
 Wanghui Li
 Zelin Liu
 Ziqi Liu
 Liqian Ma
 Tianyue Ma
 Luis Ricardo Nava Pérez
 Erick German Rodriguez Alvarez *
 Donna Frida Safiera
 Kaurik Saxena
 Nitesh Kumar Singh
 Dongling Xie
 Wenjun Zhang

Information Technology (IT Management)

Fernando Campos Sandoval **
 Daniel Patrick Fassinger
 Fritz Aaron Foraker
 Arturo Garcia Talavera **
 Karl Frerich Gleason **

William Mikell Herrington
 Federico Lanzoni **
 Christine L. McKnight
 Juan Carlos Moreno Arias **
 Caleb Luke Muller *
 Alejandro Perez **
 Lucia Quiroz Roman **
 Jaime Moisés Rodríguez Díaz **
 Ricardo Roman Jimenez **
 Victor Alonso Salinas Martinez **
 Daniel Arturo Santana Calvo **
 Joshua Amos Smith
 Martin Solis Hernandez **

Information Technology (IT Management), Adelaide, Australia

Md Zaidul Alam
 Anshu Anand
 Omar Tonatihu Argüello González *
 Jerame Beneros Beloy
 Jerry Binas Canale
 Freedierick Paulo Claud
 Carlos Alberto Curiel Peña *
 Ning Pei Ding
 Larsa Pranenza Rahila Faby *
 Ángel García Pérez *
 Joyce Bautista Gatchalian
 Mustafa Muhammad Ghazanfar *
 Hayun Jung
 Vidhi Khare *
 Kim Dianne Bedolido Ligue
 Sunit Kamlesh Mehta *
 Rolando Navarro
 Glenn Bullecer Pepito *
 Geldof Bumenlag Resuello **
 Shem Durst Elijah B. Sandig *
 Tianyue Shao *
 Xiang Tan
 Wen-Chi Tseng *
 Jangkyung Yun **
 Gang Zeng
 Jiyuan Zhou

Information Technology (Information Security and Assurance)

Brie Carranza
 Elvis Troy Clemetson
 Matthew Eldren Ellis
 Carlos Francisco Estevez
 Mohanpreet Singh Gujral
 Clinton Fielding Kehr
 Deonicio Martinez *
 Jeffrey Warren McMillen
 Nicholas Alexi Midzak *
 Pujita Patni *
 Benjamin Pollack *

Colin Kile Raymond *
Nathaniel Jacob Richmond **
John Randall Rovesti
Matthew Alan Schwieger *
John Eugene Charles Stewart
William Dewitt Tidwell

**Information Technology
(Information Systems Management)**

Danny Abdow
Kiana Danielle Bassey **
Todd David Bertapelle **
Julianne Early-Meehan **
Todd Theodore Fokken
Bret James Lucka **
Michael Alan Nitoski
Michael Andrew Taylor *
Liviu Vlad *

**Information Technology (Software
Design and Management)**

Zaid Al-Momen *
Andrew M. Bunker

**Information Technology
(Software Engineering)**

Keith Buford **
Paul Gregory Fenton

DOCTOR OF PHILOSOPHY

Uttara Madurai Ananthakrishnan *
Managing Content on Digital Platforms
Advisor(s): Beibei Li,
Michael D. Smith, Rahul Telang
Arslan Aziz
Digital Signals: How Advertising and
Ratings Influence Consumer Choice
Advisor(s): Beibei Li, Hui Li,
Michael D. Smith, Rahul Telang
Veronica Marotta *
Essays on the Digital Economy
Advisor(s): Vibhanshu Abhishek,
Alessandro Acquisti, Kaifu Zhang
Yingjie Zhang *
User Behavior in Social-
Cyber-Physical Systems
Advisor(s): Ramayya Krishnan,
Beibei Li, Zhen Qian
Zhe Zhang
Societal and Broader Impacts of IT
Phenomena: AI and the Sharing Economy
Advisor(s): Vibhanshu Abhishek, Beibei Li

**PUBLIC POLICY AND
MANAGEMENT**

MASTER OF SCIENCE

**Health Care Analytics and
Information Technology**

Ayushi Dwivedi
Jay Ragesh Shroff

Mirabhakti R. Shukla
Andrew Murphy Simmons

**Health Care Policy and
Management**

Parul Aggarwal
Emily Lynn Bippus
Paritosh Chandwade **
Michael Joseph Coutinho
Blaine Rose Dinkin
Edgar Paul Herrington IV
Mikaela B. Lewis
Namrata Vinayak Nave
Rachel Regina Ollivierre
Joseph Julian Schermer
Miaoyuan Jessica Zhang
Gabrielle Elise Zinobile

**MASTER OF MEDICAL
MANAGEMENT**

Medical Management

Nicholas Eugene Batson
Brian R. Baxter
Anna Marie Boettcher
Denée Roberts Choice
Jeannette Barbarella Currie
Thea Dalfino
Kathleen F. Eldridge
Jonathan Andrew Goldner
Farah Khan Khalil
Thomas Kim
Doyle Lim
Maher Madhoun
Yasdet Maldonado De La Cruz
Imad M. Melhem
Michael Mineo
Mark Anthony Newell
Fredric V. Price
Aalya Mohamed
Ravi Ramani
Michael Schandorf-Lartey
Krista Marie Lang Schonrock
Anil Singh
Franz Omar Smith
Jeffrey Teller Swett

**MASTER OF PUBLIC
MANAGEMENT**

Public Management

Ahmed Salem Almashjari
Beth Joy Beyer *
Erica Rae Brandon
Anthony F. Capotosto **
Nicholas Winter Chubb
David Robert DeBor
Mary Rose Debor
Ashleigh Marie Deemer

Rachel Ann Dolcich
Andrea Regina Elcock
John Erick Espino Velásquez
Matthew William Fuller *
David J. Guzikowski *
Hallie Kohler Johnson
Samaria Sari Johnson
Jessica Kadie-Barclay
Christine Marty Kotecki
Yuyun Liang
Thomas E. McConkey Jr. *
Allyce La'Fay Pinchback-Johnson
Ernest Rajakone
Alexandra Christine Rice *
Loretta Gina Sackey
Wendy Loader Schiller **
Alyson Shaw
Andre Akeem Simon
Hannah Jane Somers **
Emma Strong *
Zhongxin Sun
Katherine Lyons Sutherland
Aster Teclay
Jessie Michael Ulibarri **
Jessica Ann Walker

MASTER OF PHILOSOPHY

Public Policy and Management

Lindsay Anne Bostwick **
Philipp Lukas Gregor Burckhardt
Byeong Jo Kim **
Rahul Ladhania **
Mallory Nobles **

MASTER OF SCIENCE

Public Policy and Management

Laura Monica Aldrete Lopez
Carolina Arroyo Hernandez
Aimen Awan
Christopher Bell
Dyvonnie Evelyn Body
Christian Brooks **
William Champ Brown
Nattaphat Buddharee *
Fatima Bunafoor **
Claire R. Capsheew **
Skye 'Aulani Tsutae Cardenas
Sean Gregory Caulfield **
Si Chen
Dominic J. Contreras
Avonelle Kendra Davis
Lucy Daynes
Niki Alicia Wells Deininger
Sarah Elizabeth Detweiler
William Lane Griswold Dively
Conor Thomas Doherty
Qitong Dong

LaChrista LaShang Douglas
 Erika Leigh Eagan
 Andrew Christopher Edkins
 Clayton Mark Edwards
 Allyson Andrea Fierro
 Sebastian Franco
 Nicole Marie Gans
 Brian Thomas Gillikin **
 Edie Laurel Godwin
 Natasha González Deprez
 Olga Louise Graves
 Jason Min Griess
 Matthew C. Grove *
 Adrienne Elaine Habiger
 Christon Marcus Harris
 Kathryn Leonard Heffernan *
 Paul Gerard Heffernan
 Jose Ignacio Hortal Fontanet
 Wei Huang
 Joon-Buhm Huh
 Maria Lizbeth Ibarra Rodriguez
 Sara Elaine Jackson
 Mehr Asma Javed
 Qiuyun Jia
 Varun Joshi **
 Rashmeen Kaur
 Jenny Christine Keyt
 Jeremy Alexander Killion
 Maureen Wangechi Kimamo
 Clara Kitongo
 Jana Elizabeth Laks
 Katherine V. Lazarski **
 Katie Lynn LeFevre
 Eugene Leventhal
 Minyin Li
 Xilai Li
 Qianye Lin
 Yasu Lu
 Grace Kathryn Luetmer
 Cong Lyu
 Shivarthn Sivagurunathan Maniam
 James Brendan McHugh
 Caitlin McMahon
 Weijia Mi
 David Mitre Becerril
 Krista Marie Mobley **
 Libby Anderson Mucciarone *
 Wilson Mui
 Marisa Alexandria Nowicki
 Yasin Öcal
 Clarissa Tiffany Paz
 Sarah Ann Pesi
 Michael John Peterson IV *
 Cheena Mae Pongase
 Sneha Pradhan
 Meeti Purani
 Emily Christine Rehfus
 Gilbert Felipe Resendez

Matthew David Rogotzke
 Cheryl Ann Rozinski
 Alex Stuard Sandoval
 Robert Santamaria
 Isaac Aaron Schiffman **
 Ela Šehić
 Temeca Ann Simpson
 Nikki Lyn Smith
 Emily Marie Snoek
 Eduardo Diego Solomon
 Mayo Soma Sonko
 Claire Souchet Jacquillat *
 Travis James Stahl
 Adam Steckel **
 Brien Frederick Webster Stelzer
 Na Su
 Tania Ashley Taloute
 Tiffany Taulton
 Bertrand Olivier Teirlinck
 Alex Samuel Temple
 Tsion Tesfaye **
 Alfredo Trejo III
 Xiaoshu Wang
 Yawen Wang
 Ziwen Wang
 Peijin Wei
 Max Gabriel Weisz
 Erin Ashley Welch **
 Xinlu Yao
 Jessica Young **
 Mingjia Yuan
 Jun Zhang
 Shuonan Zhang
 Xinmei Zheng
 Ziyu Zhou

**Public Policy and Management,
 Adelaide, Australia**

Astrofil Hyde Maynopas Alcala
 Michel Pampelon Basister
 Michael Bonn Ampis Bonifacio
 Ignacio Maximo Bosch
 Katie Suzanne Bourke
 Alexander Chen
 Anne Tamandani Chivunde
 Crislin Baculpo Cruz
 Norelyn Endrina Dacillo
 Pallave Dasari *
 Carl Dwight Resquites Demetria
 Javier Echegaray
 Jessmond Aranda Elvina
 Huang Ge **
 Gayle Robin Grieger *
 Mamta Jaiswal
 Harlene Rose Vicente Mamiit
 Edhen Manzanarases
 Hafsa Mariam *
 Sudipta Mitra

Raniel Jude Abapo Pamatmat
 Laskar Rianto
 Lourdes Ana María Romero
 Cipriano *
 Tatsunori Sato
 Yvette Mariano Solas
 Michelle Manag Sta. Romana *
 Marina Liz Swinnen
 Rama Yudo Yudo Wirawan
 Kotaro Yamaguchi
 Shiqi Yan

**Public Policy and Management
 (Data Analytics)**

Joohyun Sarah Cho
 Benjamin Hayes
 Ling Hong
 Junming Huang
 Alexander Tobie Irvine
 Tweesha Joshi
 Atsumi Kainosho
 Hibah Khan
 Alton Lu
 Brenda Ivy Mittelbuscher
 Yasuhito Morimoto
 Hikaru Murase
 Andrew Thomas Olson
 David Alan Pinski
 Nikolas Alexander Rebovich
 Nikita Setia
 Karan Shah
 Eric Nathaniel Hyman Shapiro
 Owen Marder Stevenson
 Preetha Swamy
 Haley Magdalene Townsend

DOCTOR OF PHILOSOPHY

Leah Ruth Clark
 Three Essays on Economic Access
 to Public K-12 Education
 Advisor(s): Dennis Epple,
 Brian Junker, Lowell Taylor
Byeong Jo Kim
 Implementing Evidence-Based
 Practice: The Meaning of Evidence
 Use and Its Consequences
 Advisor(s): Taya R. Cohen,
 Baruch Fischhoff, Denise M. Rousseau
Rahul Ladhania
 Costs, Care and Causality: Essays
 in Health Policy and Statistics
 Advisor(s): Amelia M. Haviland,
 Edward Kennedy
Alexander Martin Loewi **
 The Characteristics and Creation
 of Bridging Relationships
 Advisor(s): Amelia M. Haviland,
 Brian Kovak, David Krackhardt
Jacqueline Angela Mauro *
 Nonparametric Estimation of the Effects
 of Policies to Reduce Recidivism
 Advisor(s): Amelia M. Haviland,
 Edward Kennedy, Daniel Nagin,
 Larry A. Wasserman

Mellon College of Science

DEAN OF THE COLLEGE

Rebecca W. Doerge

DEAN OF CARNEGIE MELLON UNIVERSITY IN QATAR

Michael A. Trick

BIOLOGICAL SCIENCES

Aaron P. Mitchell, Professor and Head of the Department

CHEMISTRY

Linda Peteanu, Professor and Head of the Department

MATHEMATICAL SCIENCES

Thomas Bohman, Professor and Head of the Department

PHYSICS

Scott Dodelson, Professor and Head of the Department

STUDENT-DEFINED MAJORS

Maggie Braun, Associate Dean of Undergraduate Affairs for the College

BIOLOGICAL SCIENCES

BACHELOR OF ARTS

Biological Sciences

Taylor Lee Davis

Minor: Art

Tiffany M. Kakkanatt *

Minor: Film and Media Studies

◆ Jeong Noh Lee

Su Ji Shin

Minor: Biomedical Engineering

Bryan F. Tiggs **

Minor: Biomedical Engineering

Minor: Game Design

BACHELOR OF SCIENCE

Biological Sciences

Fatema Tuz Zohra Abdul Salik

Albandari Mohammed Al-Khater

Khalid Amair H A Al-Naemi

Minor: Chemistry

Minor: History

Dina Nayel Al-Tarawneh

Najlala Al-Thani

Sayedda Sakina Amir

◆ Jeffrey You Beyon Jr.

Monica S. Cantos

Minor: Biomedical Engineering

◆ Jonathan L. Colarusso

Additional Major: Social

and Political History

Reem Abdelati Abdelwahab

Mohamed Elasad

◆ Aisha Abdulrahman Darwish

Fakhroo

Silvia M. Giampapa

Minor: Chemistry

Minor: French and Francophone Studies

◆ Sophie A. Halpern

◆ Christine Idouchi **

Additional Major: Computer Science

◆ Kawthar Alsadat Seyed Aliakbar Jafarian

Minor: Arabic Studies

◆ Jessica Jue **

Additional Major: Chinese Studies

◆ Boris Kobilja **

Minor: Biomedical Engineering

◆ Serena Lee

◆ Richard J. Lozano

Minor: Neuroscience

◆ Ruhani K. Mumick **

Minor: Computational Biology

Alexander G. Muralles

Minor: Computational Biology

◆ Aya Abed Alnaser Nour

Akua Bema Oppong

◆ Arati Rajeevan

Minor: Biomedical Engineering

Ashley M. Son

Minor: Biomedical Engineering

◆ Siyao Wang

◆ Hannah K. Weishaeupl

Minor: Business Administration

Kara A. Zaborowsky

Additional Major: Creative Writing

◆ Moussa Zekak

◆ Lansing Zhang

Minor: Hispanic Studies

Biological Sciences and Psychology

◆ Sharanya Bhatheja

Minor: Business Administration

◆ Leslie Lien Chen

Minor: Biomedical Engineering

◆ Ariel Hyemin Jeong

◆ Kiana Leong

◆ Rebecca Li

Mason D. Miles

Computational Biology

Siddharth J. Annaldasula

Minor: Neuroscience

Dong Yoon Lee

Nicole M. Matamala

Additional Major: Science,

Technology and Public Policy

Minor: Biomedical Engineering

Neuroscience

◆ Cristina Bañuelos

◆ Debarati Bhanja

Minor: Biomedical Engineering

Cory T. Bird

Minor: Environmental and Sustainability Studies

Huiyeong Chang

◆ William E. Crouch

Additional Major: Psychology

Minor: Biomedical Engineering

Minor: Chemistry

◆ Chinemeh Celinnah Eyiba

◆ Jacqueline Ling Hon

Minor: Health Care Policy and Management

Ankita Jha

◆ Prerana Katiyar

Minor: Chemistry

◆ Raashmi Krishnasamy

◆ Miranda Michele Mlincek

Brigdet Wambui Njeri

Minor: Biomedical Engineering

Pirapat Max Rerkpattanapipat

Minor: Biomedical Engineering

◆ Aliya Nicole Saffran

Alexander E. Sugar

Oliver S. Terrell

Noelle Toong

Malcolm-Christopher I. Udeozor

Keya C. Varia

Minor: Computational Biology

◆ Yixin Yuan

Minor: Biological Sciences

MASTER OF SCIENCE

Biological Sciences

Elena V. Shuvaeva

Regulation of β 2-Adrenal Receptor
Post Endocytic Sorting

Advisor(s): Manojkumar A. Puthenveedu

DOCTOR OF PHILOSOPHY

Daniel Sherman Ackerman

Fluorescence Technology Development For
In Vivo Inflammation Sensing, Cell Contact
Labeling and Targeted Photoablation
Advisor(s): Jonathan W. Jarvik

Nicholas Audette **

A Thalamocortical Circuit
Initiates Experience Dependent
Plasticity During Learning
Advisor(s): Alison Barth

Stephanie Ann Biedka

Nucleolar Stages of 60S Subunit
Assembly Involve Complex and Dynamic
Changes in Pre-rRNA Structure and
Pre-Ribosome Protein Composition
Advisor(s): John Woolford

Katherine Sarah Lagree *

Gene Function of the Transcription Factors
Mig1, Mig2 and Zfu2 in *Candida Albicans*
Advisor(s): Aaron P. Mitchell

Yizhu Lin *

Secondary Structural Analysis
of Human IncRNAs
Advisor(s): Charles Joel McManus

Amber L. Lucas **

Advancements in Proteome Sample
Cleanup Using Reversible Click Chemistry
Advisor(s): Jonathan Minden

Ardon Z. Shorr *

Tools to Examine Mechanotransduction
Advisor(s): Philip LeDuc, Jonathan Minden

Emily Jean Simon **

O-Glycosylation of the Ebola
Glycoprotein in Loss of Cell Adhesion
Advisor(s): Adam Linstedt

Amanda Marie Willard **

A Novel Dopamine Depletion Paradigm:
Investigation of Progressive Circuit
Dysfunction in Parkinson's Disease
Advisor(s): Aryn Gittis

CHEMISTRY

BACHELOR OF SCIENCE

Chemistry

◇ **Amna Ahmed ***

Samantha J. Candalor

◇ **Raunaq U. Chamdia**

Minor: Business Administration

◇ **Alicia C. Huggett**

Evan Z. Kaaret
Additional Major: Statistics
and Machine Learning

Jason Chulhun Kwak

Jennifer Leung Kwang
Minor: Physical Computing

◇ **Minkang Shon ****

◇ **Joshua B. Somers**

Minor: Innovation and Entrepreneurship

◇ **Sophia F. Zahn**

Chemistry/Biological Chemistry Track

◆ **Yilin Dong**

Minor: Biomedical Engineering
Minor: Human-Computer Interaction

◇ **Erin W. Kavanagh**

Minor: Biomedical Engineering

◆ **Sarah Leila Simon**

MASTER OF SCIENCE

Chemistry

Amna Ahmed *

Jacob Flum **

Alicia C. Huggett

Yogesh Somasundar **

Wyatt Robert Swift-Ramirez

Megan Van Horn

Sophia F. Zahn

DOCTOR OF PHILOSOPHY

Sikandar Abbas **

Plasmonically Enhanced Photostability
in Organic Fluorophores
Advisor(s): Linda Peteanu

Anne Arnold

Biologically Inspired Functional
Graphenic Materials and Polymers
for Tissue Regeneration and
Energy Applications
Advisor(s): Stefanie Sydlik

Yookyung Bae **

Supramolecular Structures Based
on PNA and Metal Complexes
Advisor(s): Catalina Achim

Matthew A. Baker

Development and Mechanistic
Understanding of Nickel-Catalyzed Suzuki
Catalyst Transfer Polycondensation
Advisor(s): Kevin Noonan

Mae Alexandra Carpenter

Tie-Dyes for Detection of Protein
Interactions. A Tool Towards Fluorescence
Based Detection of Synapses
Advisor(s): Marcel Bruchez

Andria Raecine Fortney *

Beyond Polythiophenes: Exploring
the Impact of Precisely Controlled
Microstructure of Group 16 Conjugated
Polymers on Their Supramolecular
Organization and Properties
Advisor(s): Tomasz Kowalewski

Eric Robert Gottlieb *

Experimental and Computational
Explorations of Structural Catalytic
Activity Relationships in Functional
Nanocarbons Derived from
Polyacrylonitrile Containing Polymers
Advisor(s): Tomasz Kowalewski,
David Yaron

Wei-Che Hsieh **

Synthesis and Biomedical Applications
of Gamma Peptide Nucleic Acid
Advisor(s): Danith Ly

Haichen Li *

On Developing Cost-Efficient
Computational Solutions to
Physical Chemistry Problems
Advisor(s): David Yaron

Qi Li

Tailoring the Atomic Structure,
Self-Assembly and Optical
Property of Gold Nanoclusters
Advisor(s): Rongchao Jin

Jiannan Liu

Computational Study of Structures
and Dynamics of Ionic Liquids
Advisor(s): Hyung Kim

Stephanie Nicole Mack *

Biochemical Investigation of
Lariat Debranching Enzyme and
Spliceosomal RNA Through the Use
of Backbone Branched RNA
Advisor(s): Subha Das

Seyedeh Samaneh Mesbahi **

Modeling ionotropic Glutamate Receptors
(iGluRs) Structure-Function Relationships
Advisor(s): Maria Kurnikova

Kedar Marjan Perkins

Synthesis, Characterization
and Applications of Polymer-
Grafted Lignin Surfactants
Advisor(s): Newell Washburn

Logan Daniel Plath **

Heavy Ion Mass Spectrometry
Incorporating Superconducting
Tunnel Junctions
Advisor(s): Mark Bier

Michael Joseph Polen Jr. *

Development of a Cold Stage to Measure
Ice Nucleating Activity Produced by
Biomass Burning: Ash, Aerosol and Aging
Advisor(s): Ryan Sullivan

Thomas Ribelli *

Development of Highly Active
and Selective Copper Catalysts for
New ATRP Initiating Systems
Advisor(s): Krzysztof Matyjaszewski

Serzhan N. Sakipov **

Molecular Modeling: Studies Investigating
Mechanisms Behind the Function
of Biological Macromolecules
Advisor(s): Maria Kurnikova

Artur Sargun *

Metal-Modified Peptide Nucleic Acids
with Applications in Supramolecular
Chemistry and Nanotechnology
Advisor(s): Catalina Achim

Woong Young So *

Emission Mechanism of
Silicon Nanoparticles
Advisor(s): Linda Peteanu

Guojun Xie *

Molecular Bottlebrushes
as Novel Materials
Advisor(s): Krzysztof Matyjaszewski

Jiajun Yan *

Polymer Hybrid Materials:
Preparation and Properties
Advisor(s): Krzysztof Matyjaszewski

Shuo Zhao **

Electrocatalytic Applications of
Atomically Precise Gold Nanoclusters
Advisor(s): Rongchao Jin

Chemistry and Engineering and Public Policy

Qing Ye

Atmospheric Organic Aerosols: Formation, Mixing and Human Exposure
Advisor(s): Neil Donahue, Ryan Sullivan**MATHEMATICAL SCIENCES****BACHELOR OF SCIENCE****Computational Finance**

- ◆ Zizhuo Chen
- ◆ Tianyu Gu
Additional Major: Computer Science
- ◆ Weng Shian Ho
- ◆ Zhuoyang Li
- ◆ Dongyun Lim
Minor: Statistics
- ◆ Xingjian Yu
- ◆ Quchen Zhou
Minor: Statistics
- ◆ Yisu Zhou
Additional Major: Statistics and Machine Learning

Mathematical Sciences

- ◆ David J. Altizio
Minor: Computer Science
- ◆ Vineet Vikas Apte **
- ◆ Matthew A. Bowen
- ◆ Tai-Wei Chang
- ◆ Ethan W. Gruman
Additional Major: Computer Science
- ◆ Eugene Han
Additional Major: Statistics
Minor: Computer Science
- ◆ Nicholas Mario Hougland
- ◆ Huayun Huang
Additional Major: Human-Computer Interaction
- ◆ Koutian Huang
- ◆ Lilan Huang **
- ◆ Cody T. Johnson
Additional Major: Computer Science
- ◆ Jordan T. Klodowski
- ◆ Julia Marie Koltas
Additional Major: Psychology
- ◆ Donghyun Koo
Additional Major: Computer Science
- ◆ Andrew O. Kwon
- ◆ Joonha Lee
Minor: Business Administration
Minor: Computer Science
- ◆ Hang Liao
Additional Major: Computer Science
- ◆ Ziyin Liu *
- ◆ Hannah Mahon
- ◆ Alan J. Menaged
Minor: Computational Biology

- ◆ Cameron C. Montag
Additional Major: Computer Science
- ◆ David E. Neiman
Additional Major: Robotics
- ◆ Shonak P. Patel
- ◆ Mehar Sawhney
- ◆ Joshua M. Siktat **
Minor: Philosophy
- ◆ Sukhnyak Sohi
- ◆ Alexander E. Sugar
- ◆ Taisuke Yasuda
Additional Major: Computer Science
- ◆ Xiaorong Zhang
Additional Major: Computer Science
Minor: Computational Finance

Mathematical Sciences (Computational and Applied Mathematics)

- ◆ Xinhui Guo **
Minor: Machine Learning
- ◆ Shuailin He
Minor: Computational Finance
Minor: Computer Science
- ◆ Ran Huan
Additional Major: Computer Science
Additional Major: Statistics and Machine Learning
- ◆ Chaoran Jin
- ◆ Yuanyuan Li
Additional Major: Computer Science
- ◆ Jiangxue Liu
Minor: Animation and Special Effects
Minor: Human-Computer Interaction
- ◆ Nadia H. Razeq
Additional Major: Human-Computer Interaction
- ◆ Sylvia A. Taylor
Additional Major: Psychology
- ◆ Robert D. Widmann
- ◆ Ziniu Wu
- ◆ Hanying Xu
- ◆ Chuning Yang
Minor: Computer Science
Minor: Machine Learning
- ◆ Huiwen Zhang
Additional Major: Statistics
Minor: Computational Finance

Mathematical Sciences (Discrete Mathematics and Logic)

- ◆ Joshua M. Ackerman
Minor: Computer Science
- ◆ Weimiao Chen
Additional Major: Computer Science
Minor: Computational Finance
- ◆ Christopher D. Grossack
Minor: Music
- ◆ Bradley Guan
Minor: Computational Finance
Minor: Computer Science
- ◆ Elliot D. Haney
Minor: Computer Science

- ◆ Raymond Hogenson
Additional Major: Computer Science
- ◆ Necati Alp Mueyesser
- ◆ Jacob Neumann
Additional Major: Logic and Computation
- ◆ Brian R. Riedel *
- ◆ Kartik Sabharwal
- ◆ George Viccaro
- ◆ Emily Zhu

Mathematical Sciences (Operations Research and Statistics)

- ◆ Sahil J. Abraham
- ◆ Foster J. Boales
- ◆ Tyler M. Chapin
- ◆ Bryan Ding
Minor: Computational Finance
Minor: Japanese Studies
- ◆ Shenhan Fang
- ◆ Cindy Fouraker
- ◆ Akanksha Kartik **
Minor: Computer Science
- ◆ Gean Shen
Minor: Business Administration
Minor: Computational Finance
- ◆ Jacob Silverman
Minor: Economics
- ◆ Varun Singh *
Minor: Computer Science
- ◆ Qiuyu Wang
Additional Major: Statistics
- ◆ Xue Yang
Minor: Business Administration
- ◆ Ran Yao
Additional Major: Computer Science
- ◆ Shaojie Zhang

Mathematical Sciences (Statistics)

- ◆ Matthew B. Kowaleski
Minor: Technology and Policy
- ◆ Drew Darragh Moses
Minor: Machine Learning
Minor: Physics
- ◆ Ho Tae Noh
- ◆ Jeremy T. Wei
Additional Major: Computer Science
- ◆ Wenjia (Laura) Zhang
Minor: Business Administration
Minor: Computer Science

MASTER OF SCIENCE**Mathematical Sciences**

- ◆ David J. Altizio
- ◆ Matthew A. Bowen
- ◆ Hanif Joey Cheung *
- ◆ Cody T. Johnson
- ◆ Cameron C. Montag
- ◆ Necati Alp Mueyesser
- ◆ David E. Neiman
- ◆ Yifan Sun

Andrew Joseph Warren
Xinyu Wu
Jingjing Xu
Taisuke Yasuda
Emily Zhu

DOCTOR OF PHILOSOPHY

Christopher David Almost
Diffusion Scaling of a Limit-Order
Model: The Symmetric Case
Advisor(s): Steven Shreve

Michael Anastos
Algorithmic and Structural
Properties of Random Graphs
Advisor(s): Alan Frieze

Joseph Briggs *
Online Algorithms and
Extremal Structures
Advisor(s): Wesley Pegden

Samuel Cohn *
On the Homogenization of Diffusions
in Periodic Comb-Like Structures
Advisor(s): Gautam Iyer, Robert Pego

Yuanyuan Feng
Dissipation Enhancement by Mixing
Advisor(s): Gautam Iyer

Giovanni Gravina
Variational Techniques for Water
Waves and Singular Perturbations
Advisor(s): Giovanni Leoni

David H. Gutman
First-Order Methods in Convex
Optimization: Acceleration,
Conditioning and Rescaling
Advisor(s): Javier Peña

Adrian C. Hagerty
Variational Methods for Second
Order Structured Deformations
and Multiscale Problems
Advisor(s): Irene Fonseca

Clive William Newstead **
Algebraic Models of
Dependent Type Theory
Advisor(s): Steve Awodey

Yue Pu *
Weakly Singular Waves and
Blow-Up for a Regularization of
the Shallow-Water System
Advisor(s): Robert Pego

Xiaofeng Yu
Diffusion Scaling of a Limit-Order
Book Model: The Asymmetric Case
Advisor(s): Steven Shreve

Jing Zhang
Some Results in Combinatorial Set Theory
Advisor(s): James Cummings

PHYSICS

BACHELOR OF SCIENCE

Physics

Masahiro Abe
Additional Major: Economics
and Statistics

Hao Chen

- ◇ **Samuel Dai**
- Yasmene Wang Elhady ***

- ◆ **Alex Fernet**
Minor: Mathematical Sciences
- ◇ **Sara A. Graves**
Minor: Gender Studies
Minor: Politics and Public Policy
- Steven M. Hall**
Minor: Computer Science
- ◇ **Nicholas Mario Houglund**
- Akira Kyle ****
Additional Major: Computer Science
Minor: Philosophy
- ◆ **Ziyin Liu ***
Minor: Computer Science
- ◇ **Ruvini Navaratna**
Minor: Biomedical Engineering
- Hannah B. Smith**

Physics/Applied Physics Track

- ◆ **Yi Fan ***
ThomasJae Garcia
- ◇ **Evan J. Harber**
Minor: Robotics
- ◆ **Akari C. Kumagai**
Eamon B. Levin
- ◆ **Diamond Marie Moody**
Minor: Engineering Studies
- Pinxu Ren**
Minor: Engineering Studies
- Shanshan Xie**
Additional Major: Robotics
- Daniel C. Yan**
Minor: Engineering Studies
- Zachary J. Zumbo**

Physics/Astrophysics Track

- ◆ **Ian M. Holst**
Minor: Robotics
- Olivia Kung ***
Minor: Physical Computing

Physics/Biological Physics Track

- ◇ **Pavitra Ramesh**

Physics/Chemical Physics Track

Adrian A. Johnson

Physics/Computational Physics Track

- Xuekai Du ****
- ◆ **Luka Alexander Jelenak**
Minor: Computer Science
- ◆ **Evan Schindewolf**
Minor: Economics
Minor: Robotics
- Cassidy N. Smith**
Minor: Computer Science

MASTER OF SCIENCE

Physics

Zhaozhou An
Qingrui Cao
Yingzhang Chen

Muhammed Fethullah Erguder
Yang Huang
Peikai Li
Yueying Ni
Emma Rollinson Oxford
Shashin Pavaskar
Rebecca Rapp
Alejandro Sanchez
Andrew Smith
Daniel Zile

DOCTOR OF PHILOSOPHY

Rulin Chen **
Quantitative Study of Polycrystal
Deformation Using High Energy
X-ray Diffraction Microscopy
Advisor(s): Robert Suter

Brian P. Josey
Association of Neurotransmitters
with stBLMs
Advisor(s): Mathias Losche

Hsiu-Hsien Lin *
Fast Radio Bursts Detections and
Pulsar Timing Solutions Using
Intensity Mapping Data
Advisor(s): Jeffrey B. Peterson

Mao-Sheng Liu **
Inference of Dark Matter Density
Profiles of Dwarf Spheroidal Galaxies
via Distribution Functions
Advisor(s): Matthew Walker

Menglei Sun **
Search for Supersymmetry Using Events
with a Photon, a Lepton and Missing
Transverse Momentum in Proton-Proton
Collisions at $\sqrt{s} = 13$ TeV in CMS
Advisor(s): Manfred Paulini

Mustafa Mert Terzi **
Curvature-Tilt Theories of
Lipid Membranes
Advisor(s): Markus Deserno

Evan Corey Tucker
Galaxy Clusters in the
Presence of Substructure
Advisor(s): Matthew Walker

Xiaoou Zhang
Topological Effects in Various
Two-Dimensional Systems
Advisor(s): Di Xiao

STUDENT-DEFINED MAJORS

BACHELOR OF SCIENCE

Cognitive Systems

Daniel A. Morris
Minor: Innovation and Entrepreneurship

Computational Game Development

Miranda A. Zeitlin

Technology and Media for Educational Innovation

Eduardo Flores

School of Computer Science

INTERIM DEAN OF THE SCHOOL

Tom M. Mitchell

DEAN OF CARNEGIE MELLON UNIVERSITY IN QATAR

Michael A. Trick

COMPUTATIONAL BIOLOGY

Robert F. Murphy, Head of the Department

COMPUTER SCIENCE

Srinivasan Seshan, Head of the Department

HUMAN-COMPUTER INTERACTION INSTITUTE

Jodi Forlizzi, Director of the Institute

INSTITUTE FOR SOFTWARE RESEARCH

William L. Scherlis, Director of the Institute

LANGUAGE TECHNOLOGIES INSTITUTE

Jaime G. Carbonell, Director of the Institute

MACHINE LEARNING

Roni Rosenfeld, Head of the Department

ROBOTICS INSTITUTE

Martial Hebert, Director of the Institute

COMPUTATIONAL BIOLOGY

BACHELOR OF SCIENCE

Computational Biology

- ◆ Douglas Z. Qian
- ◆ Chaya Wurman **
Minor: Biomedical Engineering
- ◆ Muyu Yang

MASTER OF SCIENCE

Computational Biology - Advanced Study

Kelvin Minhao Liu **

DOCTOR OF PHILOSOPHY

Sabrina Rashid
Distributed Computing in Nature
Advisor(s): Ziv Bar-Joseph

Xiongtao Ruan
Computational Methods for Image-
derived Modeling of Cell Shape
and Organization Dynamics
Advisor(s): Robert F. Murphy

Bradley Ryan Solomon *
Computational Methods for
Enabling Experiment Discovery on
100-Terabase RNA-seq Datasets
Advisor(s): Carl Kingsford

COMPUTER SCIENCE

BACHELOR OF SCIENCE

Computer Science

- Nikita A. Agarwal
Minor: Human-Computer Interaction
- ◆ Zejie Ai
Minor: Engineering Studies

Gustavo Eduardo Angulo
Mezerhane **

Minor: Language Technologies

- ◆ Emilio Arroyo-Fang
Minor: Machine Learning
- ◆ Tanvi Bajpai
Additional Major: Discrete
Mathematics and Logic
- ◆ David Bang
- ◆ Jayanth S. Bharadwaj
Minor: Human-Computer Interaction
- ◆ Zhong Yu Bing **
Minor: Machine Learning
- Elizabeth J. Board **
Minor: Human-Computer Interaction
- Prachi A. Bodas **
Minor: Robotics
- ◆ Wenyue Cai
Minor: Animation and Special Effects
- ◆ Ziheng Cai
Grant Oliver John Campfield
Minor: Machine Learning
- ◆ Darshan Chakrabarti
Minor: Machine Learning
Minor: Mathematical Sciences
- Anthony L. Chan
Additional Major: Statistics
and Machine Learning
- ◆ Joyce Tian Chen
Minor: Human-Computer Interaction
Minor: Learning Media
- Michael B. Chen
Minor: Computational Finance
- Jessica Y. Cheng
Minor: Business Administration
- ◆ Ricson Cheng **
Minor: Machine Learning
- Stephen Alexander Clark
Minor: Business Administration
Minor: Machine Learning

- ◆ Eric C. Clinch
Minor: Logic and Computation
- Zeina Darwiche
Minor: Psychology
- Evan Taylor DeSantola
Minor: Business Administration
- Pranav S. Devarakonda
Minor: Mathematical Sciences
- ◆ Zhan Dong
Minor: Machine Learning
- ◆ Xiong-Fei Du
Minor: Engineering Studies
- Alice Duan
Minor: Learning Media
Minor: Social and Political History
- Cem Ersoz
Additional Major: Robotics
- Alexandre C. Ettouati
Minor: Business Administration
- ◆ Allana Adan Evans
Minor: Machine Learning
- ◆ Axel S. Feldmann
Minor: Robotics
- Benjamin J. Fishbaum
Minor: Mathematical Sciences
- ◆ Alexander M. Friedman
Minor: Human-Computer Interaction
- Robert Toshimi Fry
Minor: Linguistics
- Christopher N. Ganas **
Minor: Language Technologies
- ◆ Bo Gao
Minor: Mathematical Sciences
- Abhinav Girish
Minor: Robotics
- ◆ Richard Gu
Minor: Creative Writing
- ◆ Young Jean Han **
Minor: Mathematical Sciences

- ◆ **Charisse S. Haruta**
Additional Major: Cognitive Science
- ◆ **Mohammed Qusay Hashim**
Minor: Mathematical Sciences
- ◆ **George Hatzis-Schoch**
Minor: Discrete Mathematics and Logic
- ◆ **Jong Woo Hong**
Minor: German Studies
- ◇ **Daniel C. Howarth**
Minor: Neural Computation
- Jeremy Ahrens Huang**
Minor: Physics
- ◆ **Koutian Huang**
- ◆ **Seungmin Hwang**
Minor: Animation and Special Effects
- ◆ **Ariela H. Immordino**
Minor: Mathematical Sciences
- ◆ **Rahul Jaisingh**
Minor: Business Administration
- Puja Jena ***
Minor: Business Administration
- ◆ **Rebecca L. Jesurum**
Minor: Physics
- ◆ **Shuli Jiang**
Minor: Engineering Studies
- ◆ **Yang Jin ****
Minor: Machine Learning
- ◆ **Vincent K. Kang ****
Minor: Machine Learning
- ◆ **Yijin Kang**
Minor: French and Francophone Studies
Minor: Sound Design
- Grace E. Kao**
Minor: Human-Computer Interaction
- ◆ **Omar Ahmed Metwally Khattab**
Minor: Mathematical Sciences
- Dhruv Khurana**
Minor: Robotics
- ◆ **Ildoo Kim**
Additional Major: Computational and Applied Mathematics
Minor: Computational Finance
Minor: Machine Learning
- Ji Woo Kim**
Minor: Philosophy
- ◆ **Sean D. Kim**
- ◇ **Anne E. Kohlbrenner**
Additional Major: Philosophy
- ◆ **Junhan Kong**
Additional Major: Human-Computer Interaction
Minor: Machine Learning
Minor: Statistics
- Kai Kuehner**
Minor: Game Design
- ◆ **Arisha J. Kulshrestha**
Minor: Language Technologies
Minor: Physics
- Clare X. Lai**
Minor: Biomedical Engineering
Minor: Human-Computer Interaction
- ◆ **Prachi A. Laud ****
Minor: Machine Learning
- ◆ **Nghia T. Le**
Minor: Machine Learning
- ◆ **Mark Lee**
Minor: Machine Learning
- ◆ **Dongyu Li**
Minor: Machine Learning
- ◆ **Jonathan Lingjie Li**
Minor: Engineering Studies
- ◆ **Mengze Li**
Minor: Physics
- Qingyang Li**
Minor: Robotics
- ◆ **Shangda Li**
Minor: Mathematical Sciences
- ◆ **Shaoyan S. Li**
Minor: Discrete Mathematics and Logic
- ◆ **Yucen Li ****
Minor: Language Technologies
Minor: Statistics
- ◆ **Patrick Lin**
Additional Major: Discrete Mathematics and Logic
- Nikhil Lingireddy**
Minor: Business Administration
- Justin C. Liu**
Minor: Statistics
- ◆ **Xinran Liu**
Additional Major: Discrete Mathematics and Logic
- Ian Lo**
Minor: Biomedical Engineering
Minor: Robotics
- Vicki Long**
Minor: Sound Design
- Janine Audrey Louie**
Minor: Game Design
- ◆ **George C. Lu**
Additional Major: Discrete Mathematics and Logic
- ◆ **Zhichu Lu**
Minor: Engineering Studies
- ◆ **Jason Ma ****
Minor: Art
- ◆ **Tianjun Ma**
Minor: Human-Computer Interaction
- Charles S. Meng**
Minor: Machine Learning
- ◆ **Xiangquan Meng**
Minor: Robotics
- Jared Moore**
Minor: Software Engineering
- ◆ **Aaron I. Mortenson**
Minor: Linguistics
- ◆ **Hariank S. Muthakana ****
Minor: Machine Learning
- ◆ **Emily P. Newman**
Additional Major: Robotics
- ◆ **Amadou L. Ngom**
Minor: Machine Learning
- Thomas J. O'Connor ****
Minor: Mathematical Sciences
- Justin U. Okoro**
Minor: Machine Learning
- Lily T. Olson**
Minor: Business Administration
- Abubaker Omer**
Minor: Mathematical Sciences
- Steven Thomas Palmer ****
Minor: Business Administration
- Jacqueline Peng**
Minor: Sonic Arts
- ◆ **Jack Wallace Penick ****
Minor: Machine Learning
- Matthew G. Quarles**
Minor: Music
- ◆ **Vijay Ramamurthy**
Minor: Mathematical Sciences
- ◆ **Pranjali Rathi**
- ◆ **Clifford S. Ressel**
Additional Major: Linguistics
Minor: Language Technologies
- ◆ **Rameel S. Rizvi**
Minor: Robotics
- ◆ **Nicholas J. Roberts**
Minor: Linguistics
- ◆ **Eliot W. Robson**
Additional Major: Discrete Mathematics and Logic
- ◆ **Matthew Salim**
- ◆ **Julian Sam**
Minor: Business Administration
- Tomas Alejandro San Miguel**
Minor: Game Design
Minor: Social and Political History
- ◆ **Matthew D. Savage**
Minor: Human-Computer Interaction
Minor: Mathematical Sciences
- ◆ **Shaden Hamzeh Shaar**
Minor: Mathematical Sciences
- Amy Cheng Shan**
Minor: Business Administration
- ◆ **Jiaxian Sheng**
Minor: Mathematical Sciences
- Lanbo Shi**
Minor: Mathematical Sciences
- Changning Shou ****
Minor: Human-Computer Interaction
- Seoyeon Sim ****
Minor: Music
- Deeksha Singh Vijay Singh**
Minor: Entrepreneurship
(Student-Defined Minor)
- ◇ **Naviya Singla**
Additional Major: Creative Writing
- Alexander Michael Smith**
Minor: Cybersecurity and International Conflict
- ◆ **Zachary John Snow**
Minor: Business Administration
- ◆ **Maoyuan Song**
Minor: Discrete Mathematics and Logic
- Elora A. Strom**
Minor: Business Administration
- Madox Summermatter ****
Minor: Mathematical Sciences

- ◆ Alan T. Sun
Minor: Discrete Mathematics and Logic
- ◆ Bili A. Sun **
Minor: Machine Learning
- Xi Sun **
Additional Major: Robotics
- Chandrakumari Suvarna
Minor: Language Technologies
- ◆ Sean H. Tao
Minor: Business Administration
- ◆ Uday Uppal **
Minor: Game Design
- ◆ Tanay Vakharia **
Additional Major: Mathematical Sciences
- ◆ Jeanne Lia VanBriesen
Minor: Mathematical Sciences
- Jonathan C. VanBriesen
Minor: Ethics
- ◆ Zachary A.L. Wade
Minor: Mathematical Sciences
- ◆ William A. Walters **
Minor: Business Administration
- Tracy M. Wan
Minor: Machine Learning
- Charles Wang
Minor: Human-Computer Interaction
- ◆ Dennis H. Wang
Minor: Machine Learning
- ◆ Di Wang **
Minor: Computational Finance
- ◆ Phillip K. Wang
Minor: Mathematical Sciences
- ◆ Serena Wang **
Minor: Machine Learning
- ◆ Ziyang Wang **
Minor: Machine Learning
- ◆ Daniel L. Wen
Minor: Machine Learning
- Junghan Woo **
Minor: Language Technologies
- ◆ Caroline Z. Wu
Minor: Music
- ◆ Xinyu Wu
Additional Major: Mathematical Sciences
- ◆ Yiqi Xiang **
Minor: Human-Computer Interaction
- ◆ Newton C. Xie
Minor: Mathematical Sciences
- ◆ Mengyun Xu **
Minor: Robotics
- ◆ Sheng Xu
Minor: Computational Finance
- ◆ Victor Z. Xu
Minor: Mathematical Sciences
- ◆ Yiqin Xu
Minor: Business Administration
- ◆ Yue Xu
Additional Major: Physics
Minor: Neural Computation
- ◆ Ziyu Xu
Minor: Machine Learning

- ◆ Rohan Yadav
Minor: Machine Learning
- ◆ Rujia Yang
Minor: Machine Learning
- ◆ Zhiying Yao
Additional Major: Statistics
Minor: Computational Finance
- ◆ Meheresh S. Yeditha **
Minor: Language Technologies
- Alexander L. Yeh **
Minor: Human-Computer Interaction
- Sonia P. Yeolekar
Minor: Social and Political History
- Anita Yerneni
Minor: Machine Learning
- ◆ Shalom A. Yiblet
Minor: Machine Learning
- ◆ Yue Yin
Minor: Mathematical Sciences
- ◆ Xingjian Yu
- ◆ Chenhui Yuan
Minor: Mathematical Sciences
- ◆ Chenxi Yuan
Minor: Machine Learning
- ◆ David Zeng
Minor: Machine Learning
- Michelle Zhang
Minor: Economics
- Wilson Y. Zhao **
Minor: Neural Computation
- ◆ Yixiu Zhao
Additional Major: Mathematical Sciences
Minor: Physics
- ◆ Yishan Zhou
- ◆ Zhen Zhou
Minor: Engineering Studies
- ◆ Bofei Zhu
Minor: Mathematical Sciences
- ◆ Tiffany Zhu **
Minor: Human-Computer Interaction

MASTER OF SCIENCE

Algorithms, Combinatorics and Optimization

Amirbehshad Shahrasbi

Computer Science

Tushar Agarwal **
Anshu Aviral **
Sai Praveen Bangaru **
Priyatham Bollimpalli **
Matthew Erich Butrovich **
Minxuan Cao **
Ziyuan Chen **
Taylor Everett Clarke
Ryan Michael DeFigueiredo **
Connie Fan **
Yuan Gao **
Sarthak Garg **

David Herbert Gregory Gershuni
Tsai-Szu Hu **
Yue Ji **
Zeelena G. Kearney
Eipe Koshy **
Ping-Min Lin **
Yixing Liu **
Daniel Eliot Mahr **
Joel Ruben Antony Moniz **
Vy Nguyen **
Witold Passerat de La Chapelle **
Ticha M. Sethapakdi
Varun Sharma
Haoran Shu **
Mohit Deep Singh **
Sivaprasad Sudhir **
Yushi Sun **
Majeed Omer Thaika **
Jordan R. Tick **
Justin Chen Wang **
Tianxiong Wang **
Yiquan Wang **
Danniel Si-Hui Yang **
Linxuan Yang **
Yao Yao **
Cheng Ran Zhang **

Computer Science - Research

Solomon Boucher **
Farzaneh Derakhshan
Ryan Andrew Kavanagh *
Daehyeok Kim
Lin Ma **
Alexander B. Poms *
Evan B. Shimizu **
Ellen Vitercik **
Jinliang Wei **
Samuel Yeom **
Christopher Yu **
Tiancheng Zhi *

Computer Science - Research Thesis

Sanjay Chandrasekaran
Aditya R. Krishnan *
Gaurav Lahiry
Tianyu Li
Praladha Mallela
Yangjun Sheng

DOCTOR OF PHILOSOPHY

Brandon David Amos
Differentiable Optimization-Based
Modeling for Machine Learning
Advisor(s): Jeremy Zico Kolter

Joy James Prabhu Arulraj *

The Design and Implementation of a Non-Volatile Memory Database Management System

Advisor(s): Andy Pavlo

Ben Blum **

Practical Concurrency Testing or: How I Learned to Stop Worrying and Love the Exponential Explosion

Advisor(s): Garth Gibson

Se-Joon Chung **

Hand Pose Estimation and Prediction for Virtual Reality Applications

Advisor(s): Nancy S. Pollard

Travis Barry Dick

Machine Learning: Social Values, Data Efficiency and Beyond Prediction

Advisor(s): Maria-Florina Balcan

Shayan Doroudi

Integrating Human and Machine Intelligence for Enhanced Curriculum Design

Advisor(s): Emma Brunskill

Nathan Fulton **

Verifiably Safe Autonomy for Cyber-Physical Systems

Advisor(s): Andre Platzer

Yan Gu **

Write-Efficient Algorithms

Advisor(s): Guy E. Blelloch

Zhaohan Guo

Directed Exploration for Improved Sample Efficiency in Reinforcement Learning

Advisor(s): Emma Brunskill

Guru Prashanth Guruganesh **

Topics in Approximation and Online Algorithms

Advisor(s): Anupam Gupta

Nika Haghtalab *

Foundation of Machine Learning, by the People, for the People

Advisor(s): Avrim Blum, Ariel D. Procaccia

Yong He **

Slang — A Shader Compilation System for Extensible, Real-Time Shading

Advisor(s): Kayvon Fatahalian

Jin Kyu Kim **

Framework Design for Improving Computational Efficiency and Programming Productivity for Distributed Machine Learning

Advisor(s): Garth A. Gibson, Eric P. Xing

Christian Kroer **

Large-Scale Sequential Imperfect-Information Game Solving: Theoretical Foundations and Practical Algorithms with Guarantees

Advisor(s): Tuomas Sandholm

Stefan Klein Muller **

Responsive Parallel Computation

Advisor(s): Umut Acar

Yuzuko Carol Nakamura **

Understanding and Applying Human Grasping to Artificial Manipulators

Advisor(s): Nancy S. Pollard

Jun Woo Park

Distribution-Based Cluster Scheduling

Advisor(s): Gregory R. Ganger

Vittorio David Perera *

Language-Based Bidirectional Human and Robot Interaction Learning for Mobile Service Robots

Advisor(s): Manuela M. Veloso

Kijung Shin

Mining Large Dynamic Graphs and Tensors

Advisor(s): Christos Faloutsos

Sahil Singla *

Combinatorial Optimization Under Uncertainty: Probing and Stopping-Time Algorithms

Advisor(s): Manuel Blum, Anupam Gupta

Wennie Tabib

Approximate Continuous Belief Distributions for Exploration

Advisor(s): Nathan Michael, William "Red" Whittaker

Joseph Daniel Tassarotti **

Verifying Concurrent Randomized Algorithms

Advisor(s): Robert Harper

Colin Robert Willson White **

New Aspects of Beyond Worst-Case Analysis

Advisor(s): Maria-Florina Balcan

Zichao Yang

Incorporating Structural Bias into Neural Networks for Natural Language Processing

Advisor(s): Taylor Berg-Kirkpatrick, Eric P. Xing

HUMAN-COMPUTER INTERACTION INSTITUTE

MASTER OF EDUCATIONAL TECHNOLOGY AND APPLIED LEARNING SCIENCES

Educational Technology and Applied Learning Sciences

Pankaj Ajit *

Mohammed Abdullallah Alburaiqi *

Gregory Bunyea

Samantha Brooke Weaver *

Harley Chang

Canhai Chen

Mianhong Chen *

Siyu Chen *

Michelle H. Deng *

Tanvi Shailesh Domadia

Ryan Emberling

Tianmi Fang *

Courtney L. Francis *

Wei Gong

Shivang Gupta

Yumei Jin *

Nagasanthosh Venkata Josyula *

Ye Jin Lee *

Hao Li

Wenjie Li

Yulin Liu *

Zhuolin Meng

Zachary Allan Mineroff *

Rui Ning *

Elizabeth Hamcke Onstwedder *

Rishi Prasad Pisipati

Juliet Carol Pusateri

Napol Rachatasumrit *

Julia Marin Ridley *

Yihong Shi

Jiaojiao Song *

Xiaoyan Song

Roger Strang *

Lu Sun *

Qianhui Sun

Srinivasa Teja Talluri *

Jiasi Tan

Hanyu Tang

Cheng-Hong Wang *

Chenxin Wang *

Jiaqi Wang

Yeyu Wang *

Anne Xie *

Kexin Yang

Lu Yang *

Mengxin Yu *

Duoduo Zhang

Mingtong Zhang

Xiaofei Zhou

MASTER OF HUMAN-COMPUTER INTERACTION

Human-Computer Interaction

Charles Benjamin Abbott

Advita Adyanthaya

Neha Sandhya Agarwal

Rayna Leny Allonce

Hyo Shin Bae

Gillis Clio Bernard

Kunal Karan Bhuwalka

Doris Byeon

Lisa C. Carter

Maggie Chiu Yee Chan

Xiangzhu Chen

Yi Cheng

Won-Woo Chung

Katelyn Janae Duncan

Rufei Fan

Yifan Fu

Gabrielle Gayles

Zhaoqi Ge

Emily Gong

Yuxiang Guo

Annette Hong

Jiachen Hu
 Jing Hu
 Nur Begum Icel
 Aniruddh Iyer
 Katherine Jiang
 Xi Jin
 Swarnakshi Kapil
 Amanda Rae Kennedy
 Ja Young Lee
 Judith Leng
 Zixuan Li
 Joyce Lin
 Ying Liu
 Yun-Chun Liu
 Daniela Martina Marmolejos
 Emily Marie McDonald
 Stuart McGibbon
 Clara Joy Olson
 Hsin Yu Pai
 Hyun Woo Paik
 Ritu Parekh
 Asit Kumar Parida
 Se One Park
 Zeqian Peng
 Nathalie Rayter
 Kevin Hartsfield Sealaus
 Jeong Min Seo **
 Neha Sunil Shah
 Melissa Xue Yin Shi
 Dylan Scott Smith
 Jordan E. Stapinski **
 Tyler Stern
 Molly Vierhile
 Qian Wang
 Wuyang Wang
 Allana Wooley
 Siqi Wu
 Jee-Uk Yang **
 Nina Qiujing Yang
 Peng Zheng
 Tiffany Zhu

MASTER OF SCIENCE

Human-Computer Interaction

Anhong Guo **
 Anna Michele Kasunic Das **
 Michal Luria
 Julian A. Ramos Rojas
 Joseph Ryan Seering *
 Xu Wang **
 Qian Yang **

DOCTOR OF PHILOSOPHY

Nikola Banovic *
 Computational Method for Understanding
 Complex Human Routine Behaviors
 Advisor(s): Anind K. Dey, Jennifer Mankoff
Amy Shannon Cook
 Using Interactive Learning
 Activities to Address Challenges
 of Peer Feedback Systems
 Advisor(s): Steven Dow, Jessica Hammer
David Brent Gerritsen *
 A Socio-Technical Approach
 to Feedback and Instructional
 Development for Teaching Assistants
 Advisor(s): Amy Ogan, John Zimmerman
Brandon Thomas Taylor *
 Real-Time Depth-Based Hand Tracking
 for American Sign Language Recognition
 Advisor(s): Anind K. Dey, Daniel P. Sieworek
Bo Robert Xiao *
 On-World Computing: Enabling
 Interaction on Everyday Surfaces
 Advisor(s): Chris Harrison, Scott E. Hudson

INSTITUTE FOR SOFTWARE RESEARCH

MASTER OF INFORMATION TECHNOLOGY STRATEGY

Information Technology Strategy

Daniel Elijah Bittleston
 Mufan Chen
 Xiuyuan Guo **
 Qiyang He **
 Myra Iltefat **
 Tianhao Li **
 Yike Ma **
 Emily Peterson
 Hao Tang *
 John Trezza
 Shailee Keyur Vora *
 Yao Xiao **
 Muchen Xu **
 Mengdi Yang **
 Shangwu Yao **
 Xiaoyun Ye
 Hanfu Zhang **
 Linghao Zhang *
 Shippei Zhou **

MASTER OF SCIENCE

Information Technology - eBusiness Technology

Himanshu Adlakha *
 Sabiha Mahek Ahmed *
 Avneet Arora *
 Nirmoho Banerjee *
 Aigul Bayadil *

Chuhan Bin *
 Jiajun Chen *
 Sai Prasanth Chitti *
 Chunyi Cui *
 Fangjie Ding *
 Yuhan Fu *
 Jin Gong *
 Jianing He *
 Xinyang He *
 Jingwen Hou *
 Jiemin Huang *
 Shulin Huang *
 Yongkang Huang *
 Anal Jain *
 Boxin Jiang *
 Jay Joshi *
 Yongshan Ke *
 Anqi Li *
 Yinchun Li *
 Yueshu Li *
 Yanlin Liang *
 Chang Liu *
 Li Liu *
 Xiaoxi Liu *
 Xuan Liu *
 Yang Liu *
 Zhangqian Liu *
 Ke Lu *
 Mayuresh Narendra Waykole *
 Yaqi Peng *
 Annalena Ping *
 Shenlin Qin *
 Yujie Qiu *
 Zhiyuan Ren *
 Ajay Sainy *
 Sakshi Gopal *
 Yingfei Shen *
 Sarvagya Soni *
 Mohamed Sriha *
 Vignan Velivela *
 Ji Wang *
 Sen Wang *
 Shuoze Wang *
 Yinan Wang *
 Yueying Wang *
 Bing Wu *
 Jiaqi Wu *
 Yinong Wu *
 Ziyao Wu *
 Kangmin Xie *
 Qilin Xu *
 Rui Xu *
 Rui Yang *
 Shaoqian Yang *

Sitong Yang *
Mengyu Yin *
Xin Yuan *
Hao Zhan *
Xiaoyu Zhan *
Hongdi Zhang *
Mingquan Zhang *
Xian Zhang *
Xinlu Zhang *
Zhiyuan Zhang *
Buqian Zheng *
Lidi Zheng *
Ding Zhou *
Lan Zou **

Information Technology - Privacy Engineering

Yama Ahmadullah **
Sharada P. Boda **
Ao Chen **
Zhuo Chen **
David W. Edelstein **
Jeremy Thomas
Fan Yang **
Jianlan Zhu **

Information Technology - Software Engineering

Lakshmi Abhigna Batchu **
Yifeng Chen
Steven Coulter **
Miaojiang Deng *
Yiyi Deng
Huijun Feng *
Jiahui Feng
Liwen Feng
Yuzhu Gao *
Noah Gerber
Nijanthan Hariharan *
Jiabei He *
Haoqi Hu
Xincheng Huang
Shivani Jha *
Chaoyi Jiang *
Yifan Jiao
Rishitha Kalakata **
Aditya Nagnath Kamble *
Prathik Kotian **
Anjana Krishnamurthi **
Chen Li *
Xiujin Li
Yue Li *
Muyang Lin
Cheng-Hung Liu *

Xue Liu *
Daiyi Lyu
Rishabh Panwar
Yiqun Peng *
Yue Qi
Hao Ren *
Jimmy Sambuo *
Arun Kumar Sankaranarayanan
Prachi Shah *
Xingchen Shen *
Jingze Shi
Kavya Singaravel **
Suryansh Soni
Athreya Sridharan
Laxmi Priyadharshini Suresh
Kumar **
Benjamin Jacob Susman
Minghui Tang
Kiran Thomas
Qingqing Tong *
Aakash Kishan Vinjamur
Ruihan Wang *
Wei Wang
Wei-Hsuan Wang
Yiting Wang
Zezhi Wen *
Tianli Wu
Yifu Wu *
Shuli Xia *
Tong Xiao
Ke Xie *
Guofu Xiong
Yujie Xu
Tao Yu *
Atika Yusuf
Changjian Zhang *
Jiakai Zhang *
Yuanzong Zhang
Yunheng Zhang
Dongliang Zhou *

Information Technology - Embedded Software Engineering

Soham Shekhar Donwalkar **
Ankur Gumber **
Yu-Sam Huang **
Rashmi Kalkunte Ramesh **
Yannan Liu **
Tanmay Anand Patil **
Puneetha Ramachandra **
Wei Chia Yen **
Yumo Zhang **

Information Technology - Software Engineering Management

Sashank Mitra Pandem *

MASTER OF SOFTWARE ENGINEERING

Software Engineering

Shipra Agrawal **
Abdulwahab Abdulaziz
M. Almorebah **
Mayank Bharat Ambaliya **
Antony Praveen Durairaj **
Bharath Hegde **
Feiyang Liu **
Timothy Mon
Tatsuya Nanjo **
Sriram Koushik Uppili **
Vaibhav Walia **
Yue Wang **
Runchen Yan **
Kenji Yonekawa **
Jie Zang **
Yinuo Zhang

MASTER OF SCIENCE IN SOCIETAL COMPUTING

Societal Computing

Joshua Samuel Keat Sen Tan

MASTER OF SCIENCE IN SOFTWARE ENGINEERING

Software Engineering

Afsoon Afzal
Amor Hermosilla Alfieri
Cody Benjamin Kinneer *
Ashutosh Pandey *
Daniel Smullen
Mauricio Soto Gonzalez **
Rijnard van Tonder **
Nuo Yan

DOCTOR OF PHILOSOPHY

Jaspreet Bhatia
Ambiguity in Privacy Policies
and Perceived Privacy Risk
Advisor(s): Travis Breaux
Hanan Hibshi **
Composite Security Requirements
in the Presence of Uncertainty
Advisor(s): Travis Breaux
Momin Meraj Malik *
Bias and Beyond in Digital Trace Data
Advisor(s): Anind K. Dey, Jurgens Pfeffer

Abigail Marsh *

An Examination of Parenting Strategies
for Children's Online Safety
Advisor(s): Lorrie Faith Cranor

Ivan Ruchkin

Integration of Modeling Methods
for Cyber-Physical Systems
Advisor(s): David Garlan

LANGUAGE TECHNOLOGIES INSTITUTE

MASTER OF COMPUTATIONAL DATA SCIENCE

Computational Data Science - Human-Centered Data Science

Pranav Dheram **

WeiQi Fang **

Yanzun Huang

Wen Li **

Dongyang Lu **

Dhruv Dipak Shah **

Swapnil Singhavi **

Jingyu Wang **

Yi Xu **

Chuankai Zhang

Jieli Zhou **

Yuntao Zhou

Computational Data Science - Analytics

Anuva Agarwal **

Aayush Ahuja **

Anna Belova

Yue Cao **

Raghuveer Chanda **

Chian-Yu Chen **

Yuchen Cheng **

Hima Varsha Dureddy **

Soham Ghosh **

Mansi Gupta **

Fan Hu **

Xin Jin

Zachary Kaden **

Mihir Sanjay Kale **

Bhavya Vinod Karki **

Nitish Kumar Kulkarni **

Jean Lee **

Shihui Li **

Yutong Li **

ZeQun Li **

Zirui Li **

Yu-Hsiang Lin **

Sushant Mehta **

Sreyashi Nag **

Ganesh Palanikumar **

Zhishen Pan **

Zarana Pareshkumar Parekh **

Radhika Parik **

Anirudha Rayasam **

Aditya Siddhant **

Sida Wang **

Siyuan Wang **

Qiuzhe Wu

Huanghao Zhang **

Yuyan Zhang **

Zinian Zhao **

Linwu Zhong **

Ziyi Zhong

Computational Data Science - Systems

Ke Chang **

Tao Dai **

Bowen Deng **

Ruogu Du **

Rong Huang **

Xingyu Jin **

Ziheng Liao **

Shengjie Luo **

Siyuan Sheng **

Peixin Sun **

Yihe Tang **

Ao Zeng **

Bohan Zhang **

MASTER OF SCIENCE

Biotechnology Innovation and Computation

Vikash Anand

Yuchen Cao

Yashovardhan Chaturvedi

Simral Chaudhary

Manisha Chaurasia

Sarveshwaran Dhanasekar

Yunhan Gao

Sunil Kumar

Shan Li

Shiyao Li

Boyu Liu

Yuyang Liu

Prajwal Prakash Vasisht

Piyusha Sane

Zhihe Shen

Bowen Tan

Yongfa Tan

Shubham Tripathi

Liang Zhang

Yichi Zhang

Zheng Zhang

Kuo Zhao

Xiwen Zhao

Xiaoyu Zhou

Jue Zou

Intelligent Information Systems

Pravalika Avvaru **

Pooja Chitkara **

Alexander Martin Coda **

Madhura Das **

Pramati Sudhindra Kalwad **

Anusha Kamath **

Harini Kesavamoorthy **

Arnav Kumar **

Varun Bharadhwaj

Lakshminarasimhan **

Xinjian Li **

Zhun Liu **

Samuel Maskell **

Goutam Nair **

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Srividya Pranavi Potharaju **

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Ipsita Prakash **

Anushree Prasanna Kumar **

Poorva Ganesh Rane **

Ying Shen **

Arvind Srikantan **

Gabriel Bayomi Tinoco Kalejaiye **

Yiming Wang **

Kangyan Zhou **

Language Technologies

Emily Ahn

Vidhisha Balachandran

Sai Abishek Bhaskar

Luke Breitfeller

Khyathi Raghavi Chandu *

Aditi Swanand Chaudhary

Xianyang Chen

Samridhi Shree Choudhary *

Siddharth Dalmia *

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Wenchao Du

Yulun Du *

James Fiacco *

Liangke Gui

Shirley Anugrah Hayati

Alankar Jain

Harsh Jhamtani *

Divyansh Kaushik

Xiang Kong

Rajat Kulshreshtha *

Jean-Baptiste Lamare
 George Larionov
 Teven Le Scao
 Bohan Li
 Boyue Li *
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 Xinya Li
 Tzu-Hsiang Lin
 Jiang Liu
 Jingzhou Liu *
 Chaitanya Malaviya *
 Raghuram Mandyam Annasamy
 Thomas R.R. Manzini *
 Sanket Vaibhav Mehta
 Paul Michel *
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 Aldrian Obaja Muis
 Chirag Nagpal *
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 Naoki Otani
 Shruti Jayant Palaskar *
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 Shivani Poddar *
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 Sai Krishna Rallabandi *
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 Ramon Roger Sanabria Teixidor
 Ankit Parag Shah
 Vasu Sharma
 Sumeet Kumar Singh
 Evangelia Spiliopoulou *
 Craig Alan Stewart
 Shih-Yen Tao
 Vaibhav Vaibhav
 Nikolai Vogler
 Nidhi Kaushik Vyas
 Zirui Wang
 Torsten Wortwein
 Jiateng Xie *
 Qizhe Xie *
 Jiarui Xu *
 Xinru Yang
 Pengcheng Yin *
 Emre Yolcu
 Xiyang Zhang
 Chunting Zhou *
 Yiheng Zhou

DOCTOR OF PHILOSOPHY

Fatima Al-Raisi
 From Concepts to Curricula: Content
 Exploration Generation and Evaluation
 Advisor(s): Jaime Carbonell

Jun Araki *
 Extraction of Event Structures from Text
 Advisor(s): Teruko Mitamura

Pradeep Dasigi
 Knowledge-Aware Natural
 Language Understanding
 Advisor(s): Eduard Hovy

Jeffrey Michael Flanigan **
 Parsing and Generation for the
 Abstract Meaning Representation
 Advisor(s): Jaime Carbonell,
 Chris Dyer, Noah A. Smith

Ting-Hao Huang **
 A Crowd-Powered Conversational
 Assistant That Automates Itself Over Time
 Advisor(s): Jeffrey Bigham

Rose Catherine Kanjirathinkal **
 Explainable Recommendations
 Advisor(s): William W. Cohen

Yubin Kim **
 Robust Selective Search
 Advisor(s): Jamie Callan

Anurag Kumar **
 Acoustic Intelligence in Machines
 Advisor(s): Bhiksha Raj

Hanxiao Liu **
 Large-Scale Machine Learning over Graphs
 Advisor(s): Yiming Ying

Seungwhan Moon *
 Proactive Transfer Learning
 Advisor(s): Jaime Carbonell

Keerthiram Murugesan **
 Online and Adaptive Methods
 for Multitask Learning
 Advisor(s): Jaime Carbonell

Swabha Swayamdipta
 Syntactic Inductive Biases in
 Natural Language Processing
 Advisor(s): Chris Dyer, Noah A. Smith

Samuel McIntire Thomson
 Encoding and Decoding Graph
 Representations of Natural Language
 Advisor(s): Noah A. Smith

Yun Wang **
 Polyphonic Sound Event Detection
 with Weak Labeling
 Advisor(s): Florian Metze

Chenyan Xiong **
 Text Representation, Retrieval and
 Understanding with Knowledge Graphs
 Advisor(s): Jamie Callan

Diyi Yang
 Computational Social Roles
 Advisor(s): Eduard Hovy, Robert Kraut

Tiancheng Zhao
 Learning to Converse with Latent Actions
 Advisor(s): Maxine Eskenazi

Guoqing Zheng **
 Empowering Probabilistic Inference
 with Stochastic Deep Neural Networks
 Advisor(s): Jaime Carbonell, Yiming Yang

MACHINE LEARNING

MASTER OF SCIENCE

Machine Learning

Michael Anastos
 Ermao Cai *
 Xiaoqi Chai **
 Rulin Chen *
 Christopher Collins **
 Ruixi Fan
 Yuanyuan Feng
 Sida Gao **
 Kartik Gupta
 Hsu-Chieh Hu
 Jocelyn Huang
 Rishub Jain
 Menglan Ji
 Lynn Helena Kaack **
 Dimitris C. Konomis **
 Sumeet Kumar **
 Hemank Lamba
 Lisa Seung-Yeon Lee **
 Benjamin Lengerich
 Jiayi Li **
 Jin Li **
 Liam Li **
 Nuoyi Li **
 Kevin Lin
 Leqi Liu
 Yu Liu **
 Yusha Liu **
 Zhuoran (Oliver) Liu
 Hanqing Lu **
 Boxiang Lyu
 Wei Ma **
 Jing Mao
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 Kamala **
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 Siddharth Satpathy
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DOCTOR OF PHILOSOPHY

Alnur Ali
 Statistical and Computational Properties of Some "User-Friendly" Methods for High-Dimensional Estimation
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 Unified Models for Dynamical Systems
 Advisor(s): Geoffrey Gordon
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 Gradient Descent for Non-Convex Problems in Modern Machine Learning
 Advisor(s): Barnabas Poczos, Aarti Singh
 Bryan Hooi
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 Hanzhang Hu
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 Kirthevasan Kandasamy **
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 Veeranjanyulu Sadhanala
 Nonparametric Methods with Total Variation Type Regularization
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 Shashank Srivastava **
 Teaching Machines to Classify from Natural Language Interactions
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 Diversity-Promoting and Large-Scale Machine Learning for Healthcare
 Advisor(s): Eric P. Xing

Manzil Zaheer *
 Representation Learning @ Scale
 Advisor(s): Barnabas Poczos, Ruslan Salakhutdinov, Alexander Smola
 Hongyang Zhang
 New Advances in Sparse Learning, Deep Networks, and Adversarial Learning: Theory and Applications
 Advisor(s): Maria-Florina Balcan, David P. Woodruff

Neural Computation and Machine Learning

Nicole Selma Rafidi *
 Using Machine Learning for Time Series to Elucidate Sentence Processing in the Brain
 Advisor(s): Tom M. Mitchell

ROBOTICS INSTITUTE

MASTER OF SCIENCE

Computer Vision

Kashyap Chitta **
 Yu Ding **
 Jianwei Feng **
 Siddhant Jain **
 Yi Jiang **
 Ankita Kalra **
 Suriya Narayanan Lakshmanan **
 Xunyu Lin **
 Gaurav Mittal **
 Akshita Mittel **
 Purna Sowmya Munukutla **
 Yash Patel **
 Yongchi Su **
 Shashank Tripathi **
 Manchen Wang **
 Shengze Wang **
 Te-Li Wang **
 Zhongxu Wang **
 Ziyang Wang **
 He Wen **
 Qiqi Xiao **
 Geng Yan **
 Hui Yang **
 Kai Yu **
 Zheyu Zhang **
 Ruoyuan Zhao **
 Bo Zhou **

Robotic Systems Development

Basel Alghanem **
 Daniel L. Arnett
 Shivang Baveja **
 Joshua John Bennett **
 Zihan Henry Chen **
 Tze Hao Chong **

Nicholas Crispie **
 Georgia Burr Crowther
 Ritwik Subir Das **
 Joseph Adam Driscoll **
 Luka Tom Eerens **
 David J. Evans **
 Vivek Gopal Ramaswamy **
 Pulkit Goyal **
 Pengsheng Guo **
 Yanda Huang **
 Jennifer Isaza
 I-Chen Jwo **
 Oliver John Krenzel **
 Divya Prakash Kulkarni **
 Ting-Che Lin **
 Rohit Suresh Murthy **
 Jiahong Ouyang **
 Keerthana P G **
 Venkata Rama Karthik Paga **
 Joseph Brian Phaneuf **
 Joao Luis Pinto Fonseca Dos Reis **
 Dicong Qiu **
 Rahul Ramakrishnan **
 David Robinson **
 Danendra Singh **
 Qian Song **
 Hari Krishnan Suresh **
 Matthew T. Swenson **
 Sai Nihar Tadichetty **
 Edward William Terry
 Karsh Vijay Tharyani **
 Pratibha Tripathi **
 Yuchi Wang **
 Andrew William Wong **
 Yang Yang **
 Abdul Moed Zafar **

Robotics

Justin Ross Abel *
 Akshat Agarwal
 Arpit Agarwal *
 Kalyan Vasudev Alwala *
 Reuben Micah Aronson *
 Rogerio Bonatti **
 Jack Buffington *
 Chao Cao
 Kai-Hung Chang *
 Yifan Ding
 Logan Michael Ellis *
 Jaskaran Grover *
 Matthew Hanczor *
 Christopher Hazard *
 Gines Hidalgo Martinez
 Bing-Jui Ho *

Shih-Chieh (Jerry) Hsiung *

Nikhil Jog

Ashwin Khadke *

Rawal Khirodkar

Vigneshram Krishnamoorthy

Michael Sukyung Lee *

Jiahe Liao *

Lauren Lieu **

Ratnesh Madaan *

Pragna Mannam

Tanya Marwah

Cecilia Gabriela Morales Garza *

Cormac O'Meadhra *

Venkataramanan Rajagopalan **

Shastri Ram *

Tanmay Shankar *

Arjun Sharma *

Maximilian Karl Rudolf Sieb

Ramitha Sundar *

Donglai Xiang

Anqi Yang

Tian Ye

Wentao Yuan

Sam L. Zeng *

Sung Kyun Kim

Planning Under Uncertainty
with Multiple Heuristics

Advisor(s): Maxim Likhachev

Eric J. Markvicka *

Robust Soft-Matter Robotic Materials

Advisor(s): Carmel Majidi

William Campbell Martin

Optimal Control of Compliant Bipedal
Gaits and Their Implementation
on Robot Hardware

Advisor(s): Hartmut Geyer

Ishan Satish Misra *

Visual Learning with Minimal
Human Supervision

Advisor(s): Abhinav Gupta, Martial Hebert

Akshara Rai **

Learning to Learn from Simulation: Using
Simulations to Learn Faster on Robots

Advisor(s): Christopher G. Atkeson

Nitish Thatte

Design and Evaluation of Robust

Control Methods for Robotic

Transfemoral Prostheses

Advisor(s): Hartmut Geyer

Yin Zhang *

Provably Optimal Design of a
Brain-Computer Interface

Advisor(s): Steven M. Chase

DOCTOR OF PHILOSOPHY

Sankalp Arora **

Safe Data Gathering in Physical Spaces

Advisor(s): Sebastian Scherer

Matthew John Barnes **

Learning with Clusters

Advisor(s): Artur Dubrawski

Joseph Bartels

Light Sheet Depth Imaging

Advisor(s): Srinivasa Narasimhan,

William "Red" Whittaker

Philip Cooksey

Intra-Robot Replanning and

Learning for Multi-Robot Teams

in Complex Dynamic Domains

Advisor(s): Manuela M. Veloso

Tony Dear *

Extensions of the Principal Fiber

Bundle Model for Locomoting Robots

Advisor(s): Howie Choset

Ruta Parimal Desai **

Robot Design for Everyone:

Computational Tools that

Democratize the Design of Robots

Advisor(s): Stelian Coros, James McCann

Yen-Chia Hsu *

Designing Interactive Systems for

Community Citizen Science

Advisor(s): Illah R. Nourbakhsh

Hanbyul Joo **

Sensing, Measuring, and Modeling Social

Signals in Nonverbal Communication

Advisor(s): Yaser Sheikh

Tepper School of Business

DEAN OF THE SCHOOL

Robert M. Dammon

DEAN OF CARNEGIE MELLON UNIVERSITY IN QATAR

Michael A. Trick

SENIOR ASSOCIATE DEAN, FACULTY AND RESEARCH

Alan Andrew Scheller-Wolf

SENIOR ASSOCIATE DEAN, EDUCATION

Sevin Yeltekin

ECONOMICS PROGRAMS

Christopher Sleet, Head of the Programs

BACHELOR'S BUSINESS ADMINISTRATION

Burton Hollifield, Head of the Program

MASTER'S BUSINESS ADMINISTRATION

Kathryn Barraclough, Head of the Program

MASTER'S BUSINESS ANALYTICS

Willem-Jan van Hoeve, Head of the Program

PH.D. PROGRAM

Nicola Secomandi, Head of the Program

STUDENT-DEFINED MAJORS

Sevin Yeltekin

BUSINESS ADMINISTRATION

BACHELOR OF SCIENCE

Business Administration

- ◆ **Ommar Laith Aburaddad**
Minor: Economics
- Krish Aggarwal**
Minor: Global Systems and Management
- Kholoud Abdollah Ahmadi**
Minor: Global Systems and Management
- Tamim Masson M. Al-Asfar**
Minor: History
- Aisha Abdulrahman Al-Dosari**
Minor: Global Systems and Management
- Maryam Abdulrahman Al-Dosari**
Minor: Economics
- Sara Abdulla Salem Al-Haj**
Minor: History
- Alreem Nasser Al-Hammadi**
Minor: Arabic Studies
- Pance Muhammad Khamis Muhammad Ali**
Minor: Economics
- Amina Yousuf Al-Jassim**
Minor: Global Systems and Management
- Sara Fahad Al-Khalifa**
Minor: History
- Mesned Ali Al-Misned**
Minor: History
- Ali Fahad A.A. Al-Naama**
Minor: History
- Maryam Mohamed Al-Nasr**
Minor: Arabic Studies
- Nasr Jassim N.A. Alnasr**
Minor: History
- Dana Abdulaziz A.A. Al-Obaidan**
Minor: English
- Abdulla Fahad Al-Thani**
Minor: Arabic Studies

- ◆ **Maryam Sultan Ameen**
Minor: Economics
- ◆ **Kathryn E. Anderson**
Minor: Innovation and Entrepreneurship
- Anmol A. Bajaj**
Additional Major: Statistics
- Austin P. Barrett**
Minor: Chinese Studies
- ◆ **Ryan N. Barrett**
Minor: Computer Science
- ◆ **Andrew Bartusiak**
Minor: Biomedical Engineering
- Sachi Prem Belani**
Minor: Innovation and Entrepreneurship
- ◆ **Samuel Belaye**
Additional Major: Statistics
- ◆ **Gregory D. Bellwoar**
Minor: Decision Science
- Preston S. Bryant**
Minor: Global Systems and Management
- Jason M. Caso**
Minor: Decision Science
Minor: Hispanic Studies
- ◆ **Ryan Ho-Lim Chan**
Additional Major: Statistics
- ◆ **Yi Chen**
Additional Major: Statistics
- ◆ **Ying Chen**
Additional Major: Human-Computer Interaction
- ◆ **Sheril Paulin Christopher**
Minor: Global Systems and Management
- ◆ **William J. Clark**
Minor: Global Systems and Management
- ◆ **Alex J. Cline**
Minor: Global Systems and Management
- ◆ **Kevin D. Cory**
Additional Major: Statistics
Minor: Computational Finance
- ◆ **Forrest H. Cullings**
Additional Major: International Relations and Politics
Minor: Arabic Studies

- ◆ **Ezra M. Daniel**
Minor: Decision Science
- Abdulla Al Darwish**
Minor: History
- ◆ **Cyrine Darwish**
Minor: Economics
Minor: Global Systems and Management
- ◆ **Tyler Davis**
Minor: Global Systems and Management
- Charles Downing**
Additional Major: Statistics
- ◆ **Madailein Mary Dubrosa**
Minor: Decision Science
- ◆ **Jin Fang**
Additional Major: Statistics
- Eman Fatima**
Minor: Economics
- Riva Fouzdar**
Additional Major: Human-Computer Interaction
- Alex Froimzon ***
Minor: Global Systems and Management
- Leopoldo M. Galvan**
Minor: Music Technology
- ◆ **Peter W. Geyer**
Minor: Film and Media Studies
- ◆ **Gabriel J. Gillen**
Minor: Arabic Studies
- ◆ **Grant C. Glosner**
Minor: Social and Political History
- ◆ **Arlex Gole**
Additional Major: Human-Computer Interaction
- ◆ **Anthony Salvatore Gulli ****
Minor: Global Systems and Management
- Nisha Gupta**
Minor: Psychology
- Gaurav Gupte ****
Additional Major: Ethics, History, and Public Policy
- ◆ **Michelle Jaeyeon Hahm**
Minor: Global Systems and Management

- ◆ **Mohamed Abdelkader Hamdi**
Minor: Economics
- ◆ **Yutong Han**
Additional Major: Statistics and Machine Learning
- ◆ **Gunnar Tyler Henning**
Minor: Statistics
- ◆ **Rui Hu**
Minor: Statistics
- ◇ **Angela Huang**
Additional Major: Human-Computer Interaction
- ◆ **Maximilian M. Jessen**
Minor: Economics
- ◆ **Xuan Jiang**
Minor: Psychology
- ◆ **Christina Guohua Jin**
Additional Major: Human-Computer Interaction
- ◆ **Young Min Jin**
Minor: Statistics
- ◆ **Simran K. Jobanputra**
Additional Major: Human-Computer Interaction
Minor: Statistics
- ◆ **Carly Jordan**
Additional Major: Statistics
- ◆ **Wilson Alling Judy**
Additional Major: Statistics
- ◆ **Gunho Jung**
Additional Major: Statistics
- ◆ **Akhil Kemburu**
Minor: Computer Science
- ◆ **Mallika Khanna**
Additional Major: Mathematical Sciences (Operations Research and Statistics)
- ◆ **Majdi Fayad Khatib**
Minor: History
- ◆ **Jung Eun (Elaine) Kim**
Minor: Global Systems and Management
- ◆ **Minji Kim**
Additional Major: Human-Computer Interaction
- ◆ **Hannah Koschmeder**
Additional Major: Statistics
- ◆ **Karl-Mark Kumm**
Minor: Global Systems and Management
- ◆ **Barun Kwak**
Additional Major: Human-Computer Interaction
- ◆ **Kwun Ip Patrick Lee**
Additional Major: Statistics
- ◇ **Sarochoa Leelamanthep**
Minor: Human-Computer Interaction
- ◆ **David Levin**
Minor: Music Theory
- ◆ **Daniel J. Levine**
Minor: Technology and Policy
- ◆ **Charles S. Li ****
Minor: Economics
- ◆ **Jerry Y. Li**
Minor: Economics
- ◆ **John Li**
Additional Major: Statistics
- ◆ **Ziling Liao**
Additional Major: Statistics
- ◆ **Michael L. Lin**
Additional Major: Statistics
- ◆ **Shih-Yu Lin**
Minor: Human-Computer Interaction
- ◆ **Izabela W. Litwin**
Additional Major: Statistics
Minor: Russian Studies
- ◆ **Jesse Lu**
Minor: Human-Computer Interaction
- ◆ **Melissa Lu**
Additional Major: Economics
Minor: Design
- ◆ **Danielle Lyerly**
Additional Major: Psychology
- ◆ **Menatalla Khaled Mahmoud**
Minor: Ethics
- ◆ **Roman Makarov ****
Minor: Computer Science
- ◆ **Sarah Nasser M.A. Marafih**
Minor: Economics
- ◆ **Jennifer J. Mayberger**
Additional Major: Decision Science
- ◆ **Anuja M. Menon ****
Additional Major: Statistics
- ◆ **Madhvi Menon**
Minor: Economics
- ◆ **Stephen D. Mesh**
Minor: Sociology
- ◆ **Thomas Samir Michael**
Additional Major: Philosophy
- ◆ **Jiwon Min**
Additional Major: Statistics
- ◆ **Faisal Rizwan Mir**
Minor: Organizational Psychology (Student-Defined Minor)
- ◆ **Maxwell C. Mirho**
Minor: Innovation and Entrepreneurship
- ◆ **Jose Mora**
Minor: Philosophy
- ◆ **Nicholas A. Moreno**
Minor: Decision Science
- ◆ **Kevin A. Mortillaro ****
Minor: Statistics
- ◆ **Aisha Ahmad Muhaidi**
Minor: History
- ◆ **Allison Mui**
Additional Major: Human-Computer Interaction
- ◆ **Anthony Norberto Neves**
Additional Major: Statistics and Machine Learning
- ◆ **Adnan Salman Noorani**
Additional Major: Statistics
- ◆ **Japkirat S. Pannun**
Minor: Economics
- ◆ **Thomas Maxwell Partlo**
Minor: Mathematical Sciences
- ◆ **Jerry Peng**
- ◆ **Michael Piroli**
Minor: Computational Finance
- ◆ **Spencer Poon**
Additional Major: Statistics
- ◆ **Kamari B. Purcell**
Additional Major: Statistics
- ◆ **Nandini Radhakrishnan**
Additional Major: Statistics
- ◆ **Sudeep V. Raj**
Minor: Computer Science
- ◆ **Nishant R. Reniwal**
Minor: Computer Science
- ◆ **Alyssa J. Rodriguez**
Additional Major: Hispanic Studies
- ◆ **Arturo R. Rodriguez-Reyes ****
Minor: Human-Computer Interaction
- ◆ **Daniel X. Rong**
Minor: Engineering Studies
- ◆ **Ariana Rudina**
Additional Major: Decision Science
- ◆ **Tyler Scanlon**
Additional Major: Statistics
- ◆ **Frank Douglas Schenk**
Additional Major: Statistics
- ◆ **Shahnoor Semy ****
Minor: Global Systems and Management
- ◆ **Tzu-Yu Sheng**
Additional Major: Statistics
- ◆ **Zachary M. Sikov**
Minor: Decision Science
- ◆ **Jacqueline E. Singer**
Additional Major: Social and Political History
- ◆ **Richa Singh**
Additional Major: Statistics
- ◆ **Brad A. Steiner**
Minor: Global Systems and Management
- ◆ **Haris Saad Syed**
Minor: Economics
- ◆ **Patrick Tan**
Minor: Media Design
- ◆ **Katie Tang**
Minor: Global Systems and Management
- ◇ **Pauline Si Hui Ting**
Minor: Chinese Studies
- ◆ **Eileen Jo Walstad**
Minor: Biomedical Engineering
- ◆ **Bowen Wang**
Minor: Computer Science
- ◆ **Elisa Wang**
Additional Major: Statistics
- ◆ **Yi Wen**
Additional Major: Statistics
Minor: Media Design
- ◆ **Amie Wong**
Additional Major: Statistics
- ◆ **Samantha Wu**
Minor: Psychology
- ◆ **Catherine Xu**
Additional Major: Statistics
Minor: Neuroscience
- ◆ **Grant Y. Xu**
Additional Major: Statistics and Machine Learning
- ◆ **Dennis S. Yang**
Additional Major: Computer Science
Minor: Computational Finance
- ◆ **Kai-Yin Yang**
Additional Major: Statistics
Minor: Decision Science

Linda X. Yang
Additional Major: Statistics
and Machine Learning

Yi Yang
Minor: Architecture

Jae Won Yoon
Additional Major: Statistics

Zong Chu Austin Yu
Additional Major: Statistics
and Machine Learning

◆ Alvina Binru Zhang
Minor: Human-Computer Interaction

◆ Karena T. Zhang
Minor: Chinese Studies

◆ Yijia (Jenny) Zhang
Minor: Decision Science

Quinn R. Zsido
Minor: Arabic Studies

Business Administration (Finance)

Anthony Lo **
Minor: History

Business Administration (General Management)

Maryam Ali H.I. Al-Badr *
Minor: History

Alawiya Al-Husseiny **
Minor: Ethics

Aldana Rashid Al-Khayarin *
Minor: History

Aisha Hassan Al-Marzoqi
Minor: Global Systems and Management

Huda Khalid S.M. Al Sulaiti **
Minor: Global Systems and Management

Thomas J. Kelly
Minor: Global Systems and Management

Thomas J. Preite *
Minor: Technology and Policy

◆ Ibrahim Rehman **
Minor: Global Systems and Management

Business Administration (International Management)

Kaylyn E. Buford **
Minor: Russian Studies

Business Administration (Marketing)

◆ Joyce Ann Clarize De Guia Galang **
Minor: Psychology
Kholood Ali Nooh *
Minor: Psychology

Computational Finance

◆ Adam Lerner
Minor: Computer Science

◆ Megan C. Seiler
Minor: Statistics

◆ Cade Anthony Zawacki

INDUSTRIAL ADMINISTRATION

MASTER OF BUSINESS ADMINISTRATION

Industrial Administration

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Andrew Adrian-Karlin
Parul Aggarwal
Rafiga Akhmedli
Randa Alameh
Bogdan Andrei Aldea
Rafael Ivan Angeles Abanto
Skyler Jans Ansel
Radhika Arora
Anusha Atluri
Matthew William Austerberry
Sravya Avasarala
Abiola Ahmed Ayinde
Emily Carolyn Baddock
Mamadou Bah
Sreekanth Bangaru
Nicholas Adam Barone
Cody Lee Beahm
David Allen Bell
Alex Bergin
Lina Maria Bernal Martinez
Kanyanat Bhakawatmongkol
Abhishek Bhattacharyya **
Samuel Gene Blake
Lucas Ranjan Bohidar
Lauren Hope Borkovic
Jamie Ryan Boudreaux
Panagiotis Bourtsalas
Benjamin Nghiem Boventer
Nicholas Granger Brenneke
Jeffrey G. Brinker
Timothy Paul Brown
Nattaphat Buddharee *
Eric William Burroughs
John Edward Campion
Andrea Eleni Caralis
Turgay Catak
Benjamin Paul Cerroni
Jake Norman Cervilla
Laura Mechala Chan
Olga Chausovsky
Chuncheng Chen
Keri Chen
Ruiqun Chen
Aditya Chittor **
Eric Chuang
Benesh Mahesh Chudasama
Lawrence Jihoon Chung
Christopher Joseph Ciccone

Jill Deanne Clevenger

Bryan C. Connelly

Gregory Schiff Cooperman

Jeffrey Michael Cottle

Domenico Fortunato Cristino *

David Ross Crosby

Derek James Curry

Wei Dai

Michael Vito Dalena

Stephen Daly Danko

Lisa Anne Davis

Erick J. Deane

Steven John Deane-Shinbrot

David Jacob Deckelman

Christopher Thomas Dening

Deeona Deoki

Robert Andrew Devito

Sayan Dey

Neil Delancy Diesslin

Cameron Lane Dobson

Dario Donatelli

Megan Marie Dority

Aashay Sunil Doshi

Nicholas Peter Drenchko **

J. Keller Durkin

Christopher Alan Dye

Randall Jackson Dye

Ian Michael Eckert *

Bhanu Sekhar Edupuganti

Jacqueline Terese Elliott

Xiaowei Fan *

Christopher Michael Fedishen

William Charles Fennell

Alexander Livingston Fernandez

Luke Fleisch

Melanie Crosby Fletcher

Brian Patrick Freeman

Whitney Mills Friedman

Sreekar R. Gadde

Jessica Leigh Gallick

Barbara Suzanne Galvanek

Nicholas Matthew Garoufalis

John Stuart Gaul IV *

Jordan John Gebhardt

Chang Geng

Rebecca Anne George

Alexandra DesRoches Grande Gerson

Gabriel Lawrence Gerson

Katherine Faith Glass

Shane Fredrick Gorth

Brian Thomas Govier *

Matthew C. Grove *

Karan Mukesh Gupta

Anand Gurumurthi

Bradley James Gyngell

Mark Thomas Haakenstad
 David Louis Hanley
 Ryan Beedle Hays **
 Yanhua He
 Kathryn Leonard Heffernan *
 Paul Gerard Heffernan
 Kyle Robert Heflin
 Gregory Heffernan Heisen
 Andrew Kevin Heitmann
 Bryan James Henchir
 Maximilien Henkart
 Kyle Kaku Hicks
 Esther Yunling Ho
 Laura Marie Hoffmann
 Dewey Karl Holland
 Sarah Alexandra Holmes
 Jose Ignacio Hortal Fontanet
 Brian John Hottel
 Annie Huang
 John Michael Sebastian Ibasco
 Shamina Ibrahim
 Eric Imasogie
 Olga Ionel
 Robert Irr **
 Gabriel Post Isaacson
 Julian G. Isidro
 Shamel Omari Jacobs
 Henna Jaisinghani
 Dahye Jeong
 Pimmada Jetsadakraisorn
 Dongjun Ji
 Beibei Jin
 Yushuang Jin
 Kacie Virginia Johnson **
 Octavian Florian Victor Jordan
 Nowell Confrey Kahle
 Sri Harsha Kalvagadda
 Taewook Kang
 Surya Kapur
 Anna Kathpal
 Leonid Katsman
 Daniel Theodore Katz
 Laura Patricia Kelly
 Aditi Khanna
 Rishav Khemka
 Andrew T. Kim
 Voratham Klinthong
 Alexander Zegler Knox
 Harnsowl Lee Ko
 Drew Edward Koechley
 Viktoriia Koshelieva
 Toshiya Kotani
 Christopher Lee Kowalk
 Rajah Kuppu Krishnan
 Kavita Kumar *

Ryan Dennis Kumpfmiller
 Takayuki Kuriyama
 Michael Kurtz
 Kenji Kusakawa
 Michael Jonathan Lai
 Rahul Lakhani
 Kyle Langdell
 William L. Lee
 John Anthony Leon Jr.
 Brandon Jeng Leung
 Michael Levit
 Kevin Li
 Wei Lim
 John Lin **
 Zachary Michael Lippert
 Binyi Liu
 Jing Liu
 Perry Edward Longacre
 Victoria Eugenia Lopez
 Benjamin Lors
 Jia Yan Bryan Lum
 Ayush Luthra
 Jacob Joseph Mackey
 Karina Zhang Magnollay
 Syed Rafay Mahmood
 Ashish Maini
 Lily Makaeva
 Nilvea Odette Malave Torres
 Daniel Steven Mark **
 William Henry Maston
 David Anthony Matthew
 Justin Stumpe Mauter
 Matthew Stepan McGann
 Anuj Mehta
 Lindsay Meier
 Nunchanok Mekmasin
 Kelly Ann Mercer
 Daniel Robert Messina
 Gregory Mitseas **
 Jeffrey Michael Monson
 Chi Hwan Moon
 Eleanor Taft Mueller
 Santanu Mukherjee
 Luisa Muniz Felix De Souza
 Shaun Michael Murray
 Benjamin Daniel Narotsky
 Jose Enrique Navas Pineros
 Christopher Karl Neander *
 Rachel Ann Neice
 Bryan Gabriel Nifong
 Hirokazu Nishiuchi
 Keith Byrne Norman Jr.
 Andika Putra Nugroho
 Nalat Opasiamkajorn
 Jesus Manuel Ortiz

Betty Cheng-Yu Ou
 Nicole Elizabeth Paladino
 Paul In-Soon Park
 Thomas Maxwell Partlo
 Sankeerthana Pasupathi
 Dipen Pravinbhai Patel **
 Priya Patel
 Puja Vihang Patel
 Purvil C. Patel
 Ravi Patel
 Gabriel Eduardo Perez
 Ehsan Pesaran Afsharian
 Michael John Peterson IV *
 Brandon Raymond Pochatila
 Joseph M. Poerio
 Aderemilekun Aisha Popoola
 Daniel Marcus Poyer
 Alia Rafiq
 Yoganandan S. Rajan **
 Arun Ramasami
 Siddharth Ramkumar
 Deepak Dhanavel Kumar Ravi Kumar
 Thomas Mack Reeves
 John Frederick Reim
 Leland Louis Remson
 Kevin Albert Rentler
 Esme Marie Rhine
 Rana Ashraf Riad
 Reza Ahmed Ridwan
 Brian Andrew Roberts
 Jessica Shea Rodden
 Larnelle Jacee Rogers
 Matthew Ryan Romeike
 Isabel A. Roscoe
 Marc Jason Rosenberg
 Henry Valentine Rossoff
 Anushmita Roy Choudhury
 John Michael Russo
 Sang Yeob Ryu
 Tilak Reddy Sagireddy **
 Amit Kumar Sahu
 Khushwant Saini
 Kunal Sakhuja
 Crystal Antoinette Sanchez
 Keteki Saoji
 Pallavi Saxena
 Niraj Kamlesh Shah **
 Kshitij Sharma
 Sudeep Vinod Sharma
 Peter C. Sheh **
 Xin Shen
 Chris Woo Yong Shin
 Irfan Siddiqui
 Brian David Sigal
 Samik Nath Sil

Vertika Singh
 Peter Wilson Smithy
 Rafael Soares de Andrade Silvany
 Sicong Song
 Claire Souchet Jacquillat *
 Brien Frederick Webster Stelzer
 Cody John Stoddard
 Benjamin Adam Strickhouser
 Jolyse T. Stultz
 Karthik Sudhakar Gurnathan
 Eve Surcobe
 Andrew Ray Swindler
 Hiroki Takano
 Rufeng Tang
 Mark Harrison Taylor
 Yohei Tezuka
 Wattapon Thanachanan
 Phopphon Thiamphanphong
 Andrew Kenneth Thistle
 Trey Bentley Thompson
 Dahlia Ting
 Maria Gabriela Tokeshi Yamagusuku
 Keller Anton Tomassi
 Adam Nichols Troup
 Anveh Turel
 Kimberly Joyce Turner
 Grant Nelson Vandenbussche
 Karthik Venkateshan
 Alejandro Villanueva-Martin
 Andrew Steven Walizer
 Steven Michael Walker
 Nicholas Benjamin Walsh
 Teri Wang
 Noah Alan Weiss
 Max Gabriel Weisz
 Taylor Brittany Wenda
 Victor J. Wilczynski
 Lauren H. Williams
 David Butterfield Wolfson
 Andrew Nathan Word
 Wen-Ling Wu
 Weiwei Xiao
 Jiayi Xu
 William Yang
 Yuchao Yang
 Linsha Yao
 Harvey You
 Cheng-Lun Yu
 Jing Yu
 Ryan Tyler Zayas
 Guowei Zhao
 Zhenxiang Zhao
 Kanping Zhong
 Chesley Xin Hui Zhu
 Patrick John Zimmerman

MASTER OF SCIENCE

Economics

Majid Mahzoon
 Xuege Zhang

Industrial Administration (Accounting)

Cagla Akin
 Zhaoru Wang

Industrial Administration (Algorithms, Combinatorics and Optimization)

Su Jia
 Thomas Jose Lavastida

Industrial Administration (Finance)

Zahra Ebrahimi
 Diana George Zaki Mikhail

Industrial Administration (Operations Management)

Musa Eren Celdir

Industrial Administration (Operations Research)

Xinying Chen
 Sagnik Das
 Ozgun Elci
 Jingyi (Kyra) Gan
 Zeynep Melda Korkut
 Yuyan Wang

Industrial Administration (Organizational Behavior and Theory)

Ki-Won Haan
 Benjamin James Ostrowski
 Jisoo Park
 Sae-Seul Park

DOCTOR OF PHILOSOPHY

Johannes Gerhardus Benade
 Equity and Efficiency in
 Computational Social Choice
 Advisor(s): John Hooker, Ariel Procaccia

Julian Louis Givi
 Social Norms in Gift Giving:
 A Comprehensive Theory for Giver-
 Recipient Discrepancies in Gift Selection
 Advisor(s): Jeff Galak

Nam Ho
 Competition in the Market
 for Assurance Services
 Advisor(s): Thomas Ruchti, Jack Stecher

Hung Nam Ho-Nguyen
 Models and Efficient Algorithms for
 Convex Optimization under Uncertainty
 Advisor(s): Fatma Kilinc-Karzan

Hyun Hwang

Essays on Corporate Disclosure
 and Organizational Structure
 Advisor(s): Carlos Corona,
 Pierre Jinghong Liang

Yang Jiao **

Algorithms for Ranking and
 Routing Problems
 Advisor(s): R. Ravi

Eungsik Kim

Three Essays in the Stochastic
 Overlapping Generations Models
 Advisor(s): Stephen Spear

Ryo Kimura

Modern Methodologies for Practical
 Discrete Optimization
 Advisor(s): Willem-Jan van Hoeve

Dabeen Lee

Cutting Planes and Integrality of
 Polyhedra: Structure and Complexity
 Advisor(s): Gerard Cornuejols

Siyu Lu

Essays on Bank Competition
 and Regulation
 Advisor(s): Burton Hollifield,
 Stephen Karolyi

Anna Theresa Mayo

Dynamic Teams: Exploring the Enabling
 Conditions and Outcomes of Coordination
 Advisor(s): Anita Woolley

Megan O'Malley

Three Essays on Medicare
 Quality Initiatives
 Advisor(s): Karam Kang, Yaroslav Kryukov

Minyoung Rho

Implementation of the Deferred
 Acceptance Algorithm in
 School Choice Application
 Advisor(s): Robert A. Miller

Zijun Shi

Essays on Technology-Driven Marketing
 Advisor(s): Kannan Srinivasan

Siddharth Prakash Singh

Regulation and Management of
 Innovative Technologies
 Advisor(s): Alan Andrew Scheller-Wolf

Benjamin John Tengelsen **

Essays on Credit Frictions, Market
 Expansion and Strategic Team Production
 Advisor(s): Sevin Yeltekin

Phong Truong

Essays on Financial Analysts,
 Auditors and Industry Peers
 Advisor(s): Stephen Karolyi

Wenjie Xue

Essays on Mandatory Disclosure
 and Enforcement
 Advisor(s): Carlos Corona, Pierre Liang

Shunyu Zhang

A Structural Analysis of Sharing
 Economy Leveraging Location and
 Image Analytics Using Deep Learning
 Advisor(s): Param Singh,
 Kannan Srinivasan

STUDENT-DEFINED MAJORS

BACHELOR OF SCIENCE

Applied Technology Management

Roshan N. Sriram **

University-Wide, Intercollege and Joint-Degree Programs

Carnegie Mellon University

ENTERTAINMENT TECHNOLOGY CENTER

Drew Davidson, Director

INTEGRATED INNOVATION INSTITUTE

Peter Boatwright, Director

College of Engineering *and* College of Fine Arts

ARCHITECTURE-ENGINEERING-CONSTRUCTION MANAGEMENT PROGRAM

Erica Cochran Hameen, Track Chair

College of Engineering *and* Tepper School of Business

SOFTWARE MANAGEMENT PROGRAM, SILICON VALLEY

Gladys Mercier, Director

College of Fine Arts *and* Dietrich College of Humanities and Social Sciences

HUMANITIES AND ARTS PROGRAM

M. Stephanie Murray, Director

College of Fine Arts *and* Heinz College of Information Systems and Public Policy

ARTS MANAGEMENT PROGRAM

Kathryn Heidemann, Director

ENTERTAINMENT INDUSTRY MANAGEMENT PROGRAM

Daniel Green, Director

College of Fine Arts *and* Mellon College of Science

SCIENCE AND ARTS PROGRAM

M. Stephanie Murray, Director

College of Fine Arts *and* School of Computer Science

COMPUTER SCIENCE AND ARTS PROGRAM

M. Stephanie Murray, Director

Dietrich College of Humanities and Social Sciences, Heinz College of Information Systems and Public Policy, Mellon College of Science *and* Tepper School of Business

COMPUTATIONAL FINANCE PROGRAM

Duane Seppi, Head

Richard L. Bryant, Executive Director

Dietrich College of Humanities and Social Sciences *and* Mellon College of Science

SCIENCE AND HUMANITIES SCHOLARS PROGRAM

William Alba, Director

Mellon College of Science *and* School of Computer Science

COMPUTATIONAL BIOLOGY PROGRAM

Christopher Langmead and C. Joel McManus, Co-Directors

School of Computer Science *and* Tepper School of Business

PRODUCT MANAGEMENT PROGRAM

Gregory Coticchia, Executive Director

Jason Hong, Faculty Advisor

Robert T. Monroe, Faculty Advisor

Carnegie Mellon University

ENTERTAINMENT TECHNOLOGY CENTER

MASTER OF ENTERTAINMENT TECHNOLOGY

Yujin Ariza

Axel Aaron Arth

Mohan Bai

Caleb Rogers Biasco

Naomi Samantha Burgess

Omar S. Cheikh-Ali

Cheung Tai Ching

Raisa Nazah Chowdhury

Joshua David Danzig

Jared Ettinger

Justin Fanzo

Qiqi Feng

Matthew Eugene Floyd

Alexandra Zoe Gobeler

Atul Goel

Rajat Gupta

Yanran Han

Iris Hwang

Niharika Jain

Shan Jiang

Yein Jo

Srujani Kamineni

Sahar Kausar

Bryan Kim

Eunkyeol Kim

Wonjae Kim

Apoorva Kuduvalli Ramesh

Nisha Kunhikrishnan

Jie-Yu Lee

Kangyan Li

Yu Li

Yunhao Li

Danke Luo

Fangda Luo

Guande Lyu

Ke Ma

Ketul Nimesh Majmudar

Sudha Manigundam Raghavan

Qianye Mei

Vasant S. Menon

Tara Louise Molesworth

Thao Huong Nguyen

Euna Faith Park
Seon Woo Park
Erhan Qu
Ridima Ramesh
Miao Ren
Sijie Ren
Siyu Ren
Rachel Elise Rodgers
Jehan Singh Sandhu
Urvil Shah
Dustin Nicholas West Stephan
Trisha Pradeep Surve
Ruili Tang
Himanshu Anirudha Telkikar
Richard F. Tucker
Alan Thomas Turner
Meng Wan
Shuo Wang
Xuejun Wang
Jacob Kieran Wilson
Daniel Evan Wolpow
Hyun Jong Won
Mengqi Wu
Guanghao Yang
Victoria JaeWon Yom
Yuqiao Zeng
Yutong Zhang
Tianyi Zhao
Yifei Zhao
Yutian Zheng
Xuefan Zhou
Chaojie Zhu
Yidi Zhu

INTEGRATED INNOVATION INSTITUTE

MASTER OF INTEGRATED INNOVATION FOR PRODUCTS AND SERVICES

Integrated Innovation for Products and Services

Mutiat A. Alagbala
Lama Alfulaij
Daniel Steven Behof
Julene Conchita Evasco Bello
Matthew Dworman
Wyatt Sven Hagen
George Robert Halvorsen Jr.
Zhiye Jin
William J. Lawton
Chen Li
Lingzhi Li
Vanessa Marie Manz
Taylor Hirakawa Mau

Zeynep Olcer
Kassandra Price
Sanjaykumar Ranganayakulu
Ryan D. Stinebaugh
Chun Wang

MASTER OF INTEGRATED INNOVATION FOR PRODUCTS AND SERVICES - ADVANCED STUDY

Integrated Innovation for Products and Services

Nandita Adityan **
Michael Brough **
Hongyu Chen **
Janice Chen **
Mark Esteban Davidson **
Xitong Deng **
Hua Fan **
Benjamin Evan Fisher **
Sarthak Giri
Xinyi Guo **
Shenghui Jia **
Hyung Woo Kim **
Anna Lawn **
Kashyap Nishtala **
Manchit Rajani **
Gokul Narasimhan Suryamurthy **
Cansu Tanatmis **
Vignesh Venkatachalam **
Xiaolin Yang **
Hanyuan Zhang **
Kedi Zhang **
Xi Zhang **

MASTER OF SCIENCE

Software Management

Rashmi Ashtaker
Kevin Charles Athey
Anamika Batra
Yi-Chih Chan *
I-Chao Chen *
Junhan Chen
Marina Cholakyan *
Karl Jason Enguerra
Liangyi Fan
Jiejun Gu **
Maria Patrice Hall *
Kai-Neng Hsu **
Xiaobo Jia **
Biju Joseph Jacob *
Sang Soo Jun **
Krishna Chakra Karanam *
Chen Li **
Xiangning Li **

Zhirong Liang
Hefei Liu **
Lan Liu **
Sathish Marikani
Dhatri Misra **
Priyanshi Mittal **
Serhan Ozgul **
Amol Patil **
Gary Mazzone Peters **
Siddarth Ramesh
Shreya Rawal
Prabhu Saitu
Riah Uday Sathe **
Disha Sharma
Prasen Shelar **
Zhongwu Shi **
Sanghmitra Shrivastava **
Arda Soysal **
Yunkai Sun
Sheng-Po Tseng **
Bhim Prasad Upadhyaya *
Siva Shankaran Vasanth
Yashwanth Vempati
Chongchong Wang **
Xiaonan Wang *
Erik Bruce Wolf *
Miaozhen Zhang **
Miao Zheng **

Technology Ventures

Aamod Garg
Sarah Elsie Georges
Nicholas Latwis
Zhenyang Li
Dong Qin
Hanna Brooke Salis
Alexander Schindler
Yumin Yan
Shuhan Yang

STUDENT-DEFINED MAJORS

BACHELOR OF SCIENCE

Product Realization

Rachel Akiko Nakamura *

College of Engineering *and*
College of Fine Arts

ARCHITECTURE- ENGINEERING- CONSTRUCTION MANAGEMENT PROGRAM

MASTER OF SCIENCE IN ARCHITECTURE- ENGINEERING- CONSTRUCTION MANAGEMENT

Patrick Byrne
Arnav Choudhry **
David Cleaves
Asli Selay Darga Ozutemiz **
Safiya Hodari **
Damini Mathur **
Julie Miller
Elif Deniz Oguz Erkal **
Ankita Patel **

College of Fine Arts *and*
Dietrich College of Humanities
and Social Sciences

HUMANITIES AND ARTS PROGRAM

BACHELOR OF HUMANITIES AND ARTS

- ◆ Anna Jamieson Beck
Politics & Public Policy and Drama
Minor: Professional Writing
- ◇ Brian Bizier
Creative Writing and Drama
- ◆ Carolyn Chheath
Cognitive Science and Design
- ◆ Anne Crumley
Statistics and Art
Additional Major: Social
and Political History
- ◆ Chloé Desaulles
Cognitive Neuroscience and Art
Minor: Intelligent Environments
- ◇ Archana Goparaju
Ethics, History, & Public Policy and Art
- ◆ Shuangni Huang
Decision Science and Art
Additional Major: Human-
Computer Interaction
- ◆ Grace Tegan Huddleston
Global Studies and Art
Minor: Hispanic Studies
- Antonia A. James
Logic & Computation and Art

- ◆ Bo Young Kim
Ethics, History, & Public Policy and Art
Additional Major: Human-
Computer Interaction
- Hilary Duanya Lai
Psychology and Design
- ◆ Kevin Lee **
Global Systems & Management
and Music Performance
Minor: Human-Computer Interaction
- ◆ Renee Marie Madrigal
Anthropology and Drama
- ◇ Abbey Nicole Mandracchia
Cognitive Neuroscience and
Music Performance
- ◇ Yoon Seo Mok **
Cognitive Science and Art
Minor: Animation and Special Effects
- ◆ Gabriella M. Orbach **
Cognitive Neuroscience and
Music Performance
- ◆ Christine Jia En Phang
Psychology and Art
Minor: Religious Studies
- Coby Antonio Rangel
Cognitive Neuroscience and
Music Performance
Minor: Sound Design
- ◆ Stefan Reid Romero
Social & Political History and Drama
- ◆ Juliana Pinzon Schnerr
Creative Writing and Design
- ◆ Yong Xin See
Decision Science and Art
- ◆ Paloma Sierra Hernández
Creative Writing and Drama
Minor: Hispanic Studies
- ◇ Soojin Sohn
Global Systems & Management and Art
Minor: Animation and Special Effects
- ◆ Minjung Suh
Economics and Art

College of Fine Arts *and*
Heinz College of Information Systems
and Public Policy

ARTS MANAGEMENT PROGRAM

MASTER OF ARTS MANAGEMENT

Arts Management

Ashley Anderson Kowach
Len Ayers
Yu Cao
Adelina Teresa Chavez
Lauren Cornwell
Katherine Marie Culler
Jana Kay Fredricks **
Annesha Ganguly *
Karyme Garzon Mahmud

Rebekah Hope Geiselman
Olivia Jane Grabowsky **
Emily Rose Halpern
Kristin Eileen Helfrich
Qinglu Lu
Santiago Martinez Gonzalez
Lucy Mattout Mizrahi
Allison Anne Pichowicz
Robina Saha
Lauren Ashley Saunders
Christine Ann Senavsky
Tara Ashley Snyder
Jonathan David Spangler
Jennifer Lynn Wallisch
Yunzi Wang
Katina Phyllis White

MASTER OF ENTERTAINMENT INDUSTRY MANAGEMENT

Entertainment Industry Management

Laila Elizabeth Archuleta
Arzoo Bahl
Valentine O. Banor
Mingyu Bian
Abby Katherine Botnick
Carina Catherine Carbetta
Xueying Cheng
Olivia Catherine Green
Mengting Han
Emmalee Catherine Helms
Daniel Christopher Hoyt
Kristine Marie Klixbull
Ryan A. LaBarbera
Jingyuan Li
Chang-Hui Liu
Alyson Blaine Loutzenhiser
Paul Charles Luckenbaugh
Victoria Kaitlyn Martinez
Varnell Wendell Moffett II
Emily Ann Nees
Youqi Pu
Edmond Raymer
Joan Rodriguez
Mary Katherine Rousseau
Todd William-Holden Tucheck
Colin Shiro Vasick
Elaine Yiran Zhang

College of Fine Arts *and*
Mellon College of Science

SCIENCE AND ARTS PROGRAM

BACHELOR OF SCIENCE AND ARTS

- ◇ Parley P. E. Belsey
Neurobiology and Art
- ◆ Odelia A. Cheng
Biological Sciences and Art
- ◆ Brandon G. Foster
Biological Sciences and
Music Performance
- ◆ Mauricio R. Gil-Silva
Neurobiology and Music Technology
- ◆ Esther C. Lee
Biological Sciences and
Music Performance
- Shelby Zasacky
Mathematical Sciences and Art
Minor: Computer Science

College of Fine Arts *and*
School of Computer Science

COMPUTER SCIENCE AND ARTS PROGRAM

BACHELOR OF COMPUTER SCIENCE AND ARTS

- ◆ Léann J. Bahi
Computer Science and Art
Minor: Human-Computer Interaction
- ◇ Rebecca A. Groves
Computer Science and Art
- ◆ Dayoung Kwon
Computer Science and Music Technology
Minor: Physics
- ◆ Kearnie Lin
Computer Science and Art
- ◆ Xinyi Wang
Computer Science and Drama
- ◆ Kristin Yin **
Computer Science and Art

Dietrich College of Humanities and
Social Sciences, Heinz College of
Information Systems and Public
Policy, Mellon College of Science *and*
Tepper School of Business

COMPUTATIONAL FINANCE PROGRAM

MASTER OF SCIENCE

Yue Ao **

- Kyle A. Beyer **
- Spyridon Chandrinos **
- Weiao Ding **
- Robin Dreizer **
- Yunan Duan **
- Lucas Duarte Bahia **
- Nicholas Eterovic **
- Nicholas Frost **
- Jordan Giebas **
- Zhihan Gu **
- Bochen Guo **
- Mingzhe Guo **
- Tushar Gupta **
- Xipu Han **
- Fengge Hu **
- Yang Hu **
- Xinhui Huang **
- Eric Jian **
- Yunqing Jin **
- Sail Kim **
- Eloy Lanau Rosello **
- ◆ Miaoyuan Lang **
- Yunyao Li **
- ◆ Zhongyang Li **
- Haochuan Liang **
- Ka Iek Lin **
- Shiqi Lin **
- Guannan Liu **
- Ruochong Liu **
- Sidi Liu **
- Yundong Liu **
- Yuze Liu **
- Shangshang Long **
- Yingjie Lu **
- Zhou Lu **
- Yilie Ma **
- Zhusong Mei **
- Siliang Ni **
- Harveen Oberoi **
- Eric Pearce-Smith **
- Andrew Previc **
- ◆ Zhengyang Qi **
- ◆ Liyunshu Qian **
- Fen Qin **
- Giri Seshadri Ravi **
- Daniel Camilo Rojas Coy **
- Xue Rong **
- Richard Martin Rosenbaum **
- ◆ Rui Shen **
- Zhongwei Shi **
- Justin Skillman **
- Skander Soltani **
- Haoze Song **
- ◆ Wen Shuo Song **
- Elizabeth Sumner **
- Bin Sun **
- Qi Sun **
- Hiroyuki Toda **
- Chi-Feng Tsai **
- Hanzhe Wan **
- Li Wang **
- ◆ Tianjiao Wang **
- Weizhou Wang **
- Xinran Wang **
- Ran Wei **
- Hao Wen **
- ◆ Ge Wu **
- ◆ Mingxuan Wu **
- Shuying Wu **
- Yurong Xia **
- Mengda Xu **
- Qiyang Xu **
- ◆ Li Yan **
- Linglong Yan **
- Haiyin Yang **
- Wangshu Yang **
- Yang Yang **
- ◆ Ze Yang **
- ◆ Mengjia Yi **
- ◆ Kaile Yin **
- Yan Yu **
- Risheng Zeng
- Weili Zhang **
- Xiao Zhang **
- Xingsi Zhang
- Yixin Zhang **
- ◆ Yumeng Zhang **
- Yuyao Zhang **
- Zhaohui Zhang **
- ◆ Zhiyi Zhang **
- ◆ Lei Zhao **
- Yuting Zhao **
- Dayu Zhong **
- Fangqiu Zhou **
- ◆ Jianing Zhu **

Dietrich College of Humanities and
Social Sciences *and* Mellon College
of Science

SCIENCE AND HUMANITIES SCHOLARS PROGRAM

BACHELOR OF ARTS

- ◆ Ambika Chetal
Chemistry
Minor: Business Administration
- Lisha Yin
Economics
Minor: Social and Political History

BACHELOR OF SCIENCE

- Rebeka Csilla Almasi ***
Cognitive Science
Minor: Philosophy
- Matthew Lee Baek ****
Policy and Management
Additional Major: Business Administration
- ◆ **Orchi Banerjee**
Decision Science
Minor: Arabic Studies
Additional Bachelor of Science Degree
International Relations and Politics
- ◆ **Eric B. Barrett**
Mathematical Sciences
Dual Degree: Physics
- ◆ **Allison Abatelli Black**
Mathematical Sciences (Computational and Applied Mathematics)
Additional Major: French and Francophone Studies
Minor: Statistics
- ◆ **Alisa Chang ****
Mathematical Sciences (Computational and Applied Mathematics)
Minor: Computer Science
- Jae Eun Choi**
Statistics and Machine Learning
- Audrey S. Cortes**
Statistics
Additional Major: Decision Science
- Hongyi Ding ****
Mathematical Sciences (Operations Research and Statistics)
Additional Major: Computer Science
- ◆ **Wenyi Fei**
Mathematical Sciences and Economics
Minor: Computational Finance
- ◇ **Holly Furnari**
Neuroscience
- Charlie H. Gu**
Mathematical Sciences (Discrete Mathematics and Logic)
- ◆ **Alexandra L. Halberstadt**
Biological Sciences and Psychology
- Natalie Hearty**
Cognitive Science
- ◆ **Irina R. Javed ****
Statistics and Machine Learning
- ◆ **Hadley R. Killen**
Mathematical Sciences (Computational and Applied Mathematics)
Minor: Computer Science
- ◆ **Jane V. Kogan**
Biological Sciences and Psychology
- ◆ **Hunter Chase Kready**
Biological Sciences and Psychology
- ◆ **Stephanie Ying-Lei Kuang**
Chemistry
Minor: Creative Writing
- Rissa Lee ****
Cognitive Science
- Andy Z. Lin**
Statistics and Machine Learning
- ◆ **Roosha Mandal**
Biological Sciences
Additional Major: Creative Writing
- ◆ **Maxwell F. Martin ****
Biological Sciences
Additional Major: Social and Political History
- ◆ **Lauren Maria Nazzaro**
Biological Sciences
Minor: Biomedical Engineering
- ◆ **Zachary A. Roop**
Economics and Statistics
Minor: Social and Political History
- Gabriela Salcedo ****
Physics
- Anoushka Saxena**
Mathematical Sciences (Computational and Applied Mathematics)
Minor: Computer Science
Minor: Economics
- ◆ **Qian Sha**
Economics and Statistics
- ◆ **Margaret D. Slevin**
Social and Political History
Additional Major: Psychology
- ◇ **Wyatt Robert Swift-Ramirez**
Chemistry
- ◆ **Victoria L. Van Benschoten**
Chemistry/Biological Chemistry Track
Minor: Creative Writing
- ◆ **Harika C. Vedati ***
Mathematical Sciences (Statistics)
- ◆ **Claire Wang ****
Psychology
- Shitian Wang**
Statistics
Additional Major: Human-Computer Interaction
Minor: Design
- ◆ **Xinni Wu**
Mathematical Sciences and Economics
Minor: Business Administration
Minor: Statistics
- ◆ **Brenda Xiao**
Computational Biology
Minor: Creative Writing
- ◆ **Jingjing Xu**
Mathematical Sciences (Discrete Mathematics and Logic)
Additional Major: Computer Science
- ◆ **Shenheng Xu**
Economics and Statistics
Minor: Business Administration
- Ruihao Ye**
Physics
- ◆ **Hyunho Yoon**
Psychology
Additional Major: Creative Writing
- ◆ **Michael Young**
Neuroscience
Minor: Biomedical Engineering
- ◆ **Nan Zhang**
Biological Sciences
Minor: Computer Science
Minor: Neural Computation
- Jennifer L. Zhuge ****
Statistics and Machine Learning

Mellon College of Science *and*
School of Computer Science

COMPUTATIONAL BIOLOGY PROGRAM

BACHELOR OF SCIENCE

Computational Biology

Youssef Kanbour

MASTER OF SCIENCE

Computational Biology

Xiaoyue Cui
Ziyi Cui
Xiaoqi Fang
Saideep Rao Gona
Sarah Hsu
Xinyu Huang
Meaghan Kennedy
Kwanho Kim
Deepank R. Korandla **
Mo Li
Xinling Li
Jiachen Liu
Jinke Liu
Sumin Wang **
Brendan Wee
Caryn Willis
Yuting Xiao
Yiwen Xu
Zhenyu Yang
Mengxin Zhang
Yuheng Zhang

School of Computer Science *and*
Tepper School of Business

PRODUCT MANAGEMENT PROGRAM

MASTER OF SCIENCE

Product Management

Zhiwei Cai **
Anshum Garg **
Morgan Nelson Greenleaf **
Vivek Kant Indrayan **

Honor Society Inductees and ROTC Officer Commissioning

ALPHA IOTA DELTA

Alpha Iota Delta, the International Honor Society in Information Systems and Decision Sciences was founded in 1971. The purposes of Alpha Iota Delta are to confer distinction for academic excellence; to promote fellowship among students, faculty and administrators who share common professional interests; and to promote the application of the tools, concepts and methodologies of Information Systems and Decision Sciences toward the betterment of society. Alpha Iota Delta elects students to membership based on two key criteria: academic excellence and outstanding campus citizenship. The Carnegie Mellon University chapter was established in 2008.

Karan Bokil	Arnav Gupta
Christie Chang	Ashvin Niruttan
Tiffany Chen	Stephanie Pang

ANDREW CARNEGIE SOCIETY

Andrew Carnegie Society (ACS) Scholars are selected each year by their deans and department heads to represent their class in service and leadership. These undergraduate seniors embody Carnegie Mellon's high standards of academic excellence, volunteerism, leadership, involvement in student organizations, athletics and the arts. Since its inception in 1975, the program has recognized over 1,000 students. Each ACS Scholar receives a monetary award — made possible by the generosity of ACS members — that supports their academic and personal growth. Additionally, they work together as a committee to present a gift back to the university community. Through this opportunity, the students experience the joy of philanthropy firsthand.

Michelle Bai	Anne Kohlbrenner
Gaurav Balakrishnan	Kimberly Lamberti
Gabriel Bamforth	Christopher Lee
Orchi Banerjee	Jasmine Lesane
Cristina Banuelos	Kelly Li
Eric Barrett	Izabela Litwin
Sarah Boyle	Jeanne Luning Prak
Mari-Therese Burton	Margaret Sophia Mertz
He Jin Cha	Valene Mezmin
Wai Sing Ching	Mason Miles
Anne Crumley	Lauren Mueller
Jack Dangremond	Sydney Rosin
Yilin Dong	Zachary Snow
October Donoghue	Bridget Soderna
Aisha Fakhroo	John Verser
Jack Forman	Elisa Wang
Seth Henry	Serena Wang
Angela Huang	Yu Wu
Calvin Hubbard	Moussa Zekak
Grace Huddleston	Quchen Zhou

BETA GAMMA SIGMA

Beta Gamma Sigma, the international business honor society, recognizes outstanding academic achievement. It was founded in 1913 and serves business programs accredited by AACSB International — the Association to Advance Collegiate Schools of Business. Membership in Beta Gamma Sigma provides graduates with opportunities to network with other outstanding business leaders throughout the nation. Carnegie Mellon's chapter was established in 1983.

Kathryn Anderson	Carly Jordan
Sheril Christopher	Sarocho Leelamanthep
Forrest Cullings	Izabela Litwin
David Friedman	Anuja Menon
Yutong Han	Megan Seiler
Gunnar Henning	Elisa Wang
Rui Hu	Grant Xu
Maximilian Jessen	

PHI BETA KAPPA

Founded in 1776, Phi Beta Kappa is the nation's oldest and largest academic honor society, recognizing outstanding achievement in the liberal arts and sciences. Carnegie Mellon's chapter was established in 1995.

Orchi Banerjee	Rebecca Jesurum	Matthew Salim
Eric Barrett	Jessica Jue	Juliana Schnerr
Anna Jamieson Beck	Yijin Kang	Yong Xin See
Sarah Boyle	Prerana Katiyar	Megan Seiler
Alisa Chang	Erin Kavanagh	Qian Sha
Yi Chen	Bo Kim	Sarah Simon
Ricson Cheng	Anne Kohlbrenner	Zachary Snow
Anne Crumley	Stephanie Kuang	Isabella Starvaggi
Forrest Cullings	Esther Lee	Victoria Van Benschoten
Chloé Desaulles	Mengze Li	John Verser
Bryan Ding	Izabela Litwin	Elisa Wang
Yilin Dong	Jason Ma	Xinni Wu
Alex Fernez	Renee Madrigal	Xinyu Wu
Emma Flickinger	Margaret Sophia Mertz	Yu Wu
Brandon Foster	Hera Miao	Grant Xu
Madeline Gardner	Cameron Montag	Yue Xu
Amelia Gilson	Amadou Ngom	Muyu Yang
Evan Glauberman	Gabriella Orbach	Hyunho Yoon
Zachary Goldstein	Paige O'Riordan	Huiwen Zhang
Alexandra L. Halberstadt	Jia En Phang	Katherine Zhang
Derek Hamersly	Nadia Razek	Nan Zhang
Yutong Han	Margaret Reager	Xiaorong Zhang
Ian Holst	Nicholas Roberts	Yixiu Zhao
Eric Huang	Stefan Romero	Emily Zhu
Shuangni Huang	Sydney Roslin	
Grace Huddleston	Jules Ross	

PHI KAPPA PHI

Founded in 1897 at the University of Maine, Phi Kappa Phi is an honor society that draws its members from all academic disciplines. The society's mission is "to recognize and promote academic excellence in all fields of higher education and to engage the community of scholars in service to others." Carnegie Mellon's chapter was established in 1933.

Zainab Akhtar	Mohamed	Emma Parks
Mohammed Yusuf Ansari	Abdelkader Hamdi	Christine Jia En Phang
Mahima Arya	Rui Hu	Krishna M. Raman
Fahad Bahzad	Haotian Huang	Andrew Rosenfeld
Alexander Baikovitz	Prerana Katiyar	Aliya N. Saffran
Gaurav	Muhammad N. Khan	Anna L. Schulz
Balakrishnan	Samantha J. Locraft	Qian Sha
Karan S. Bokil	Michael Lohmeier	Margaret D. Slevin
Sarah Boyle	Richard J. Lozano	Rachel R. Sneeringer
Victoria R. Britcher	Tristan Marino	Zachary Sussman
Kaimeng Cao	Parker Mellott	Mark Tamvakis
Hanyue Chai	Margaret Sophia Mertz	Alana Toy
Christie Chang	Michael Messersmith	Amy Tsai
Ambika Chetal	Xuanyu Leon Min	Isabella J. Vendetti
Sheril Christopher	Syed R. Mohideen	Thomas Serban Von Davier
Sihan Dong	Haider A. Nazir	Siyao Wang
Puja Dutta	Carolyn Neiderlander	Xinni Wu
Leah J. Ettensohn	Emma Nicklas-Morris	Yue Xu
Michael Fernandez	Anne Noonan	Hyunho Yoon
Jack A. Forman	Olivia Olshevski	Isabel C. Yoon
Brandon G. Foster		David L. Zhang
Angela Gao		Zefeng Zhang
Xining Gao		
Caleb Glickman		

PHI SIGMA IOTA

Founded in 1922, Phi Sigma Iota recognizes outstanding accomplishment in the study or teaching of any of the academic fields related to foreign language, literature or culture. These fields include not only modern foreign languages, but also classics, linguistics, philology, comparative literature, bilingual education, second language acquisition and other interdisciplinary programs with a significant foreign language component. The society is the highest academic honor in the field of foreign languages. Carnegie Mellon's chapter was established in 1999.

Allison Black	Robert Raso
Sarah Boyle	Margaret Reager
Gunn Chaiyapattranun	Daniela Salazer De Luna
Forrest Cullings	Joseph Sandler
Emily Gallagher	Pauling Ting
Madeline Gardner	John Verser
Gabriel Gillen	Stephanie Wong
Evan Glauberman	Justine Zeller
Grace Huddleston	Karena Zhang
Yijin Kang	Katherine Zhang
Izabela Litwin	Lansing Zhang

PI KAPPA LAMBDA HONOR SOCIETY

The Theta Xi Chapter of Pi Kappa Lambda was established in 1997 by the former school head, Dr. Kenneth A. Keeling. Since

then, the School of Music has inducted some 250 students and faculty members into the honors society. The national society was established in 1918 at Northwestern University and is recognized as the premier honor society for academic excellence in music.

Jonathan Cavell	Zachary Earl Durrett Neville
Elizabeth Mae Devonshire	Phoebe Grace Robertson
Emily Gallagher	Sydney Roslin
Caleb Glickman	Joseph J. Sandler
Jennifer Jo	Mark Tamvakis
Victor Avila Luvsangenden	Ziyu Wang

SIGMA XI

Sigma Xi is an international research society whose programs and activities promote the health of the scientific enterprise and honor scientific achievement. In addition to honoring scientific achievement, Sigma Xi also endeavors to encourage support of original work in science and technology, and to promote an appreciation within society at large for the role research has played in human progress.

Vineetha Bheemarasetty	Diamond Moody
Akari Kumagai	Xiaofei Shi
Cameron Montag	Hannah Smith

TAU BETA PI

Founded in 1885, Tau Beta Pi is the nation's second-oldest academic honor society and is the only honor society representing members of the entire engineering profession for distinguished scholarship and exemplary character. Carnegie Mellon's chapter was established on February 19, 1916, at Carnegie Tech.

Michelle Bai	Angela Gao	Gregory Miller
Gaurav Balakrishnan	Raunak Sanjay Gupta	Leon Min
Ronit Banerjee	Sunjeev Kale	Mimi Niou
Gabriel Bay	James Kromka	Anne Noonan
Victoria Britcher	Kimberly Lamberti	Alex Noring
Emily Broude	Nicholas Lamprinakos	Allison Scibisz
Mari-Therese Burton	Christopher Lee	Grant Seastream
Kevin Cai	G. Ping Lee	Morgan Stanley
Wenting Chang	John Lenney	Clement Wong
Regine Choi	Christopher Littrell	Samantha Wong
Theodore Chou	Hannah Loy	Stephanie Wong
Kevin DeVincentis	Zack Masciopinto	Michael You
Jack Forman	Jack McCambridge	Boyao Yu
Raymond Galeza	Michael Messersmith	Justine Zeller
		Zheyao Zhu

ROTC OFFICER COMMISSIONING

U.S. Air Force	U.S. Marine Corps
2LT Matteo Longo	2LT Evan Glauberman
2LT Isabela Murdock	

U.S. Army	U.S. Navy
2LT Jared Jory-Geiger	Ensign Forrest Cullings
	Ensign Frank Schenk
	Ensign Daniel Vedova
	Ensign Lawrence Wu



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