

# The Network

2015-16 EDITION | ANNUAL MAGAZINE OF THE INI

"My heart is in the network."

# CELEBRATING 25 YEARS



WORKING WITH INDUSTRY

Decade of Diversity
10 YEARS OF
WOMEN@INI

INI BUILDING RENOVATION

# Welcome

#### Message from the Director

with brilliant young people from across the globe, students who come to the INI because they want to change the world.

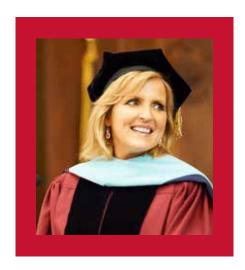
As we celebrate 25 years of excellence in education, I encourage our community to reflect on what makes the INI great. In my view, it's truly the people: the students, alumni, staff, faculty and friends.

o day at the INI is ever the same. I have the distinct privilege of interacting

That is why this edition of *The Network*, INI's annual magazine, firmly places the emphasis on the people of the INI. I encourage you to browse through the magazine for a small taste of the news and accomplishments of the INI and its people.

I look forward to working with you to build the next 25 years of success at the INI!

My heart is in the network. IS YOURS?



Dr. Dena Haritos Tsamitis
Director of the INI



#### ON THE COVER:

Program from the INI's 25th anniversary celebration on April 18, 2015.

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#### 2015-16

Annual INI Magazine

#### **ABOUT THE INI**

The Information Networking Institute (INI) was established by Carnegie Mellon University in 1989 as the nation's first research and education center devoted to information networking. As an integral department of the College of Engineering and a collaboration of the School of Computer Science, Tepper School of Business, and H. John Heinz III College, the INI's professional graduate degree programs represent an exceptional fusion of technologies, economics and policies of secure communication networks, systems and services.

#### Interdisciplinary Master's Programs

MS in Information Networking (MSIN)

MS in Information Security (MSIS)

MS in Emerging Media – Mobility (EM-Mobility)

MS in Information Technology (MSIT)

Mobility (MSIT-MOB)

Information Security (MSIT-IS)

Software Management (MSIT-SM)

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# Celebrating 25 Years of the INI

Marking 25 years of world-class graduate education in networking, security and mobility, the INI's silver anniversary celebration culminated Spring Carnival weekend with presentations and an alumni dinner and reception.

Hundreds of alumni, family, friends and colleagues gathered at Phipps Conservatory and Botanical Gardens to mark the INI's 25th anniversary.





t all began with a proposal sent to Bellcore 25 years ago. "They hired people in communications who knew nothing about computing, and people in computing who knew nothing about communications. Neither one of them knew what businesses wanted to do with either technology," said **Marvin Sirbu**, founder of the Information Networking Institute (INI).

Recognizing that Carnegie Mellon University (CMU) had all three strengths, Sirbu crafted a response to Bellcore outlining an interdisciplinary master's-level program in information networking. Thus, the INI was born. What began as a small fledgling program has evolved over the past 25 years to become an integral part of CMU's College of Engineering (CIT) and home to 276 current students from across the world.

"Today, the INI has more than 1,900 alumni who are in cross-functional positions

and leadership roles around the globe," INI director Dena Haritos Tsamitis said. "The INI was proud to showcase the accomplishments of its alumni, faculty and students in celebration of its 25th anniversary."

Entrepreneur and INI alumnus **Hooman** Radfar (MS14) was the featured keynote speaker on the afternoon of Saturday, April 18. Following the keynote, the INI hosted industry discussions with panels of faculty and alumni. Guests gathered for a networking dinner and reception that evening at Phipps

Conservatory and Botanical Gardens.

"The College of Engineering is extremely proud of the accomplishments of the INI, of the alumni, of its current students and certainly of the faculty and its



leadership," said **Jim Garrett**, dean of CIT. "I have been extremely impressed with the last 25 years and I expect us to continue to see exponential success over the next 25 years."

# A pioneer in the field of information networking

Over the course of its existence, the INI has catalyzed networking research and education at CMU, contributing to remarkable advances in communication networking. A great deal of pioneering work has emerged from the INI, with early classes tackling projects such as digital libraries, electronic health records and various forms of electronic payment on the Internet. Wifi technology also has its origins at the INI, in the form of the Wireless Andrew project initiated by the INI's first director, Alex Hills.

"At the INI, you're not asked to replicate something somebody else did," said **Vicky Theodoreli** (MS21), a software engineer at Google. "You have to come up with your own idea and that's something you also need to do in the real world."

The INI has remained on the cuttingedge since its inception, introducing new degrees in security and mobility to prepare graduates for careers in emerging technologies. Yet beyond the top-notch technical subject matter is a hidden curriculum, which is where Sirbu says the INI truly shines.

"The importance of working hard and putting your heart in the work, of combining knowledge from many different fields so you can speak both to CEOs and to technical specialists, these are the hallmarks of the INI," said Sirbu. "As long as the INI holds onto these enduring ideas, it won't matter how technology evolves over the next 25 years. Our graduates will be prepared to deal with it."



For MS25 students, the anniversary celebration was an incredible capstone experience as graduation drew near.







INI founder Marvin Sirbu with current director Dena Haritos Tsamitis.



"My heart is in what is really the fabric of the INI, **and that's its people,**" said Tsamitis.

Members of the inaugural class reminisce over "gINI Pigs" t-shirt.

# Women@INI

Celebrating 10 years of promoting diversity within engineering

he student-run organization is now celebrating its tenth anniversary, marking a decade of working toward a more inclusive and welcoming environment for women in technology. In doing so, **Women@INI (WINI)** has enabled female students to thrive during their time at the INI and beyond. Co-founders Dena Haritos Tsamitis, director of the INI, and Chenxi Wang, former Carnegie Mellon faculty member, established WINI in 2005 to address the unique challenges faced by women in the male-dominated field of engineering.

"Our goal is to create a nurturing and inspiring learning environment that promotes and celebrates gender and cultural diversity. And it has worked remarkably well," said Tsamitis. "Since 2005, the INI has seen growth in its female population and in the number of leadership roles women secure upon graduation."







#### **HISTORY**

When Tsamitis joined the INI as associate director in 2002, not even one in 10 students were female. Seeking a more diverse student body, she explored the research conducted by Lenore Blum and Carol Frieze, both professors in the School of Computer Science.

A key finding was that changes in culture needed to occur for the environment to be inviting and supportive for women. Tsamitis established WINI in 2005 to enable that culture shift.

#### **MISSION**

Modeled after Women@SCS, WINI provides a nurturing environment for women so that they may thrive and gain the confidence to overcome obstacles and become successful in their career.

Throughout the year, WINI plans networking opportunities, social events and community service. Members walk away with lasting friendships. In addition to gaining confidence, members are equipped with tools for success through workshops, speaker series and mentorship opportunities.

#### INSPIRATION

For **Hiral Shah** (MS19), WINI helped make the INI feel like home when she first came to the United States from India in 2007.

The positive experience inspired her to co-found a similar organization during her time as a software and product engineer at Apple. Under Shah's leadership, Women@ Apple-Tech became a strong community of support encouraging women to have the confidence to take charge of their careers and personal lives.





# Unveiling the New INI BUILDING



t's a completely new look for 4616 Henry Street. The eagerly awaited renovations to the INI's building concluded in August 2015, after six months of construction and many more of planning and design.

The result is a vibrant, revitalized home for INI students and staff that facilitates open collaboration and exchange of ideas. It has also afforded the INI community a muchneeded space for social events, including the Women@INI Thanksgiving Potluck and student holiday party.

"The new layout aligns with the INI's values of innovation and interdisciplinary collaboration," said Dena Haritos Tsamitis. "From social events to study sessions, the INI community is making the most of our new home."



### **{Insert Your Name Here}**

With a new building comes new naming opportunities for prominent, high-traffic spaces at the INI, ranging in scope from interview rooms to the entire building.

If you or your company is interested in this investment opportunity, contact Jennifer Feyrer at <a href="mailto:jfeyrer@cmu.edu">jfeyrer@cmu.edu</a>.

## **KEY FEATURES**

From sustainable design to open floorplans, the new building boasts an array of features that enhance student learning while also fostering social connections.

- Student spaces that are open but provide for both group collaboration and private study. What were "cluster rooms" are now called "pods," work areas with writeable wall surfaces.
- Student media and projects rooms featuring state-of-the-art multimedia systems for online collaboration.
- Private and secure lactation rooms for nursing mothers featuring lounge chairs and refrigerators. Both floors also have a shower and changing area.

- Omplete electronic security including CCTV cameras, intrusion detection and emergency help stations
- Dedicated staff and student spaces with open and inviting kitchen and lounge areas that facilitate collaboration. The student floor also features a gaming system.
- Sustainable design, including high efficiency LED lighting, recycled content floor finishes and filtered water filling stations that count the quantity of water bottles saved from the landfill.













# A Visit to Rwanda

INI director meets beloved alumnus Innocent Habiyaremye's family in his hometown of Kigali, Rwanda.



"Innocent was a shining example of someone with incredible community spirit, and his memorial fund allows us to honor him every year by recognizing a student with similar qualities," Tsamitis said.



he essence of Innocent
Habiyaremye (MS20) is
captured right there in his
first name. "Innocent had
this huge smile. He could
light up a room," said Dena
Haritos Tsamitis, director of the INI.

When the alumnus died suddenly in 2012, the INI community was stunned. During a trip to CMU Rwanda in June 2015, Tsamitis had the opportunity to visit Innocent's hometown. "Innocent's family was as warm and welcoming as I remember him to be," said Tsamitis. "They feel both honored and humbled that their son touched so many lives."

Innocent grew up in Kigali, Rwanda, and was among a handful of eager students Carnegie Mellon recruited from Rwanda. He moved to the United States in 2008 to pursue the INI's Pittsburgh-Silicon Valley MSIT-Information Security (IS) program.

"There are some people that you can tell are special from the first moment you meet them. That's how it was with him," said **Marullus Williams** (MSO6), who worked closely with Innocent on the INI's Alumni Leadership Council. For Williams, Innocent's courage was an inspiration. He overcame difficult circumstances in war-torn Rwanda and not only was accepted to Carnegie Mellon, but exceled in a highly competitive program.

Indeed, said Alain Kajangwe (MS20), Innocent was exceptional. A member of the first cohort of Rwandan students, Kajangwe observed firsthand how Innocent balanced demanding course work with deep involvement in Carnegie Mellon's community.



Alberto Cursack followed in Innocent's footsteps as an individual with an extraordinary impact on the community. In an effort to keep Innocent's memory alive, the INI has established the annual Innocent Habiyaremye Memorial Award. It is presented to an INI graduate student who embodies the sense of community spirit for which Innocent was well known.

"Alumni donations are a way to give back to an institution that has given us a lot, and Innocent found a way to start giving back, even before he left CMU," said Kajangwe. "And I am sure, today, he would be among to first to contribute to a similar fellowship."

Fighting back tears, Tsamitis presented the first award to **Alberto Cursack** (MS25) at the 2015 graduation ceremony.

"I wish I could meet Innocent's family personally to give them a big hug," said Cursack. "I wish I could do as much as he did for his people and his community, my energy and efforts are totally focused on that."

Make a gift to Innocent's memorial fund: www.cmu.edu/give

# Carnegie Mellon

# **COMMUNITY NEWS**



Farnam Jahanian named provost

Farnam Jahanian, vice president of research since 2014, has been appointed to CMU's chief academic office: provost. An accomplished scientist and successful entrepreneur, Jahanian reports directly to President Subra Suresh.

As provost, Jahanian will focus on supporting and advancing the teaching and scholarship of CMU's faculty with the support of the academic deans, as well as providing leadership for all other facets of the university's academic life.

"I am honored by this appointment and eagerly anticipate the opportunity to work closely with President Suresh and the CMU faculty, deans and the campus community to help shape the university's future," Jahanian said.



David Brumley, a professor in the Department of Electrical and Computer Engineering (ECE), has been named the third director of CyLab, Carnegie Mellon's security and privacy institute. Stretching across six colleges at CMU, CyLab partners with business and government to develop and test systems that lead to a world in which people can trust technology.

Brumley's research focuses on developing systems that automatically check the world's software for exploitable bugs. In addition to conducting research, he also leads several outreach efforts, including picoCTF, a high school computer security competition that draws tens of thousands each year. Brumley advises CMU's top internationally ranked hacking team, "Plaid Parliament of Pwning."



INI launches new Emerging Media program

Chaoya Li (MS27) considers himself a trailblazer, and indeed he is. As the first student to pursue the INI's mobility path within the Integrative Design, Arts and Technology Network (IDeATe)'s Emerging Media program, Li is on the cutting edge of a university-wide initiative fusing technology and arts expertise.

"I'm communicating with artists, computer scientists and designers, and learning what they do and how they think," Li said of the **MS EM-Mobility**. "I want to seek inspiration from their creativity."

The Master of Science in Emerging Media – Mobility (MS EM-Mobility) features a technical focus on mobile applications, services and devices. It combines a first year of increasing specialized knowledge in mobility on CMU's main campus in Pittsburgh, and a second year focused on knowledge fusion studios with opportunities to connect to projects in industry and the community.

Learn more about this and other INI degree programs: www.ini.cmu.edu



### Student News





# Practicum projects have real-world impact

Partnerships with Google and other companies position students at the pulse of industry

With the dual benefit of experiential learning and invaluable connections, practicums are a low-risk opportunity for companies to try out a new idea to solve an intriguing problem.

Want to sponsor a practicum?
Contact Wendy Fong
Sr. Strategic Programs Manager
wfong@andrew.cmu.edu

Imagine being able to point your mobile device at a display screen and fling content from your hand to the display with a flick of the wrist. Five INI students teamed up with Google this fall to explore this "fling-to-display device gesture" experience using Google Chromecast, connecting physical location and gestures to make devices better understand human intentions.

The collaboration with Google, now in its third year, is just one example of the project-based course known as the practicum. A feature of Carnegie Mellon University – Silicon Valley, the practicum connects master's student teams with clients like Google, Intel, Ericsson and NASA to solve real-world problems.

Many times a group or individual within a company will have a project that they would like to test out but lack the resources to explore. Rather than contracting the project to a software consulting team, they can become practicum sponsors and Carnegie Mellon master's students will tackle the project. Previous course projects include a survivable social network for the City of Palo Alto and a

secure contextual authentication mechanism for wearables for Ericsson.

"The value of a practicum is the ability to explore an interesting idea in order to see what kind of potential it might have," said **Trevor Pering**, experience engineer for Google's Experience Centers.

Pering has been a practicum sponsor for seven years, first at Intel and now at Google. "By stating the problem and a sketch of a solution, it's possible to quickly explore the feasibility of an idea to see if it might actually work!" he added.

Abhinav Kuruvadi (MS26), a member of the Google practicum team, said he enjoyed the "Googleyness" of the problem statement. "We are trying to showcase an extremely simple and intuitive solution by solving complex computer science problems hidden in the background," he said, drawing comparisons to Google's search, which is a simple text box with much complexity behind it.



Three INI MS26 students nabbed a grand prize win at the Emirates Travel Hackathon, showcasing their technical prowess and earning roundtrip tickets to Dubai.



Drumming with the Pittsburgh Steelers

Jennifer Burns (MS27) marches to the beat of her own drum, most recently on Heinz Field as the latest addition to the Pittsburgh Steelers drum line.

The Pittsburgh Steeline performs live for all Steelers home games as the official gameday entertainment, in addition to various events throughout the region including Steelers training camp and major area parades.

She says the INI is her ticket to becoming an expert in the information security field. As part of the **Scholarship for Service** program, offered by the National Science Foundation (NSF) and co-sponsored by the Department of Homeland Security (DHS), Burns hopes to work in a leadership position at the federal government where she can use her skills to protect the public and make a positive impact.



Celebrating women in computing

For three days in October, the most ambitious ladies in tech gathered at the world's largest technical conference for women in computing to inspire, support and engage one another to ignite change.

Among these 12,000 women technologists at the **Grace Hopper Conference** were students and alumnae of the INI, representing Carnegie Mellon as a gold sponsor for the ninth year.

"After GHC, you come back as a totally different person," concluded **Arushi Grover** (MS26). "A woman more confident, a woman more tolerant, a woman who now knows how to take on the world."

Working on cutting-edge technology alongside a global leader in the field has been an incredible capstone experience for MSIT students, one that has pushed them to brainstorm a "crazy number of solutions."

"It was very interesting to deal with something that is still being invented, a very challenging but also curious feeling," said Caio Balthazar (MS26), another practicum team member. "In my case, the best part of working with Google was experiencing rapid prototyping and receiving feedback from industry experts."

"For students, I believe that a practicum will help them better understand what industry is like, and that things are rarely as well defined and constructed as a typical university class project," said Pering. "Things can be chaotic – and I hope that exposing them to a little bit of it here and there will help them better navigate their careers!"



# Securing a Future Career

Inspired by the 1999 movie "The Matrix," **Melanie Rich-Wittrig** (MS27) discovered both a future career and a hobby.

ompeting in college hacking competitions introduced Rich-Wittrig to Carnegie Mellon's Plaid Parliament of Pwning (PPP), sparking her interest in CMU's information security programs.

"Ever since 'The Matrix' was released, I wanted to be a hacker like Trinity," said Rich-Wittrig.

She is now a first-year MSIS student, attending the INI on a full-tuition scholarship. The award is provided by the INI in partnership with the Alta Associates' Executive Women's Forum (EWF).

"I want to get paid to find bugs and holes in security so that vulnerabilities can be addressed before a malicious attacker takes advantage of them," Rich-Wittrig explained, noting the EWF INI Fellowship makes that career goal possible.

Outside of the classroom, Rich-Wittrig can be found gracefully tumbling and spinning on aerial silks (*pictured*), a hobby picked up in a rock climbing gym and shaped, in part, by her love of "The Matrix."

Rich-Wittrig says she is grateful to EWF and INI not just for the scholarship, but also for the opportunity to attend the national conference. "Getting the chance to be in a room with more than 300 women in the security field was invaluable, and I hope to see it grow as the years go on," she said.

#### ABOUT THE EWF INI FELLOWSHIP

The INI has partnered with the Executive Women's Forum, sponsored by Alta Associates, to offer the EWF INI Fellowship to graduate students. It supports full tuition costs in order to ease financial worries for these students. In addition, they gain access to mentors who have reached executive levels in their careers. This intense level support has helped to lift these scholars toward success.

"Ever since 'The Matrix' was released, I wanted to be a hacker like Trinity," said Rich-Wittrig. "I want to get paid to find bugs and holes in security so that vulnerabilities can be addressed before a malicious attacker takes advantage of them."

### Inside the INI



Partnering with the University of Hyogo (UH) in 2005 to offer an information security dual-degree in Japan was Carnegie Mellon's first foray into a global presence that has since expanded to include 13 countries. The educational collaboration reached its 10-year mark in 2015, making it the INI's longest operating international program.

With the recent renewal of the dual degree program agreement, the collaboration between INI and UH will continue over the next four years with three cohorts of MSIT-IS students. In addition to the continued educational partnership, UH will have a research collaboration with CyLab.

"The continuation of the UH partnership is vital to meeting the demands of our global society and addressing the critical issue of information security," said Dena Haritos Tsamitis, director of the INI.

"Our students create innovations with impact in Japan, the United States, and all over the world, and we are eager to welcome the next cohort into this tradition of excellence," added Tsamitis.

## What You Need to **Know in 2016**

It's an exciting time at the INI, as we head into the next 25 years and beyond!

#### 1. Save the Dates

SPRING CARNIVAL April 14-16, 2016



#### INI STUDENT & ALUMNI **SHOWCASE & MIXER**

April 15, 2016 | 5-8 p.m. INI Building, 4616 Henry Street

**COMMENCEMENT 2016** May 15, 2016

#### 2. Strategic Plan

Key stakeholders, including staff, faculty, alumni and students, have embarked on the INI's strategic planning process.

The main goal is to strengthen the future of the INI and the resulting strategic plan will be announced in late spring 2016.



#### 3. Alumni Profiles

We are seeking those interested in being featured as an INI alumni spotlight. Take a look: bit.ly/meetlNlalumni

Submit your information at bit.ly/INIalumni





Bill Nace is an associate professor of electrical and computer engineering (ECE).

# **Q&A**with Professor Bill Nace

What's one thing most students don't know about you?

I once spent a month on a three-masted sailing ship in a tall-ship race from Bermuda to Quebec. It was quite an adventure – we got hit by a hurricane, which can be kind of brutal on a sailing ship.

What is your favorite part of being a professor?

The opportunity to learn new things. In order to teach something, you really have to understand it. So, I love putting together a new lecture, or teaching a different course, and spending time to thoroughly learn the material.

Do you have any hobbies?

Biking, brewing beer, board games. I also just got a membership at TechShop, which has reinvigorated a love of woodworking, especially wood turning.

What's the best piece of advice to offer graduate students?

Grad school is different from undergrad – expect to learn differently. You have to learn to think more critically, to operate on fewer instructions, and to work on stuff that the professors don't have a clear answer to. You often get to determine the answers yourself.

Did you always want to be a professor of electrical and computer engineering?

Well, I discovered my love of teaching during my Air Force career, when I was assigned to teach at the US Air Force Academy. I really got turned on to teaching exceptional students, who challenge me and force me to be my very best. Of course, CMU has provided me with similar opportunities!

#### Faculty & Staff Updates

Bill Nace, associate professor of electrical and computer engineering, was awarded the Ruth and Joel Spira Award for Excellence in Teaching at the CIT awards ceremony.

Alex Hills, Distinguished Service Professor of Engineering and Public Policy, has been awarded an honorary Doctor of Letters degree by the University of Alaska, and was also recently inducted into the Alaska Innovators Hall of Fame.

Both awards recognize his leadership in developing wireless technology and delivering telecommunications services to rural and remote areas. In addition, the honorary degree recognizes his decades-long work improv-

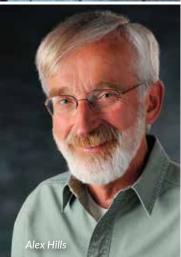
ing engineering education at the University of Alaska. Alex was the first director of the INI and the 25th anniversary graduation speaker.

Jon Peha, professor of engineering and public policy and of electrical and computer engineering, was featured in a 2015 documentary film entitled "The Internet Exposed: Encryption, Backdoors and Privacy – And the Quest to Maintain Trust."

Lorrie Cranor, professor of computer science and of engineering and public policy, was named an IEEE Fellow for her contributions to privacy engineering. In January 2016, she began an appointment as the *Chief Technologist* of the *Federal Trade Commission*.







### Alumni News

# Oracle acquires alum's company Add This

In January 2016, Oracle acquired AddThis. The company was co-founded by INI alumni Hooman Radfar (MS14) and Austin Fath (MS14). AddThis provides a marketing automation platform for online publishers and advertisers. Their personalization tools are used by 15 million websites, reaching about two billion people monthly, to increase traffic and engagement.

"AddThis has an incredible future ahead as part of the Oracle Data Cloud," said Radfar. "The INI not only provided us with the critical skills we needed to start our company after graduating, but also with access to the network and mentorship critical to our early success."

Radfar is an entrepreneur, executive and investor with expertise in social media, big data and online marketing. He is a partner at Expa, a startup studio with offices in San Francisco and New York. At Expa, he collaborates with the founders of Uber and Foursquare to build and launch category-defining, new companies.

"Our success would not have been possible without the support of the INI, its director, Dr. Dena Tsamitis, and the worldclass leadership at Carnegie Mellon," Radfar added.





### **LOVE IS IN THE AIR**



Vicky and Ryan met during the INI's 20th year celebration and were married three years later.

Vicky Theodoreli & Ryan Shaw

Never turn down a Q&A panel because you might meet your future spouse. That is how it worked for **Vicky Theodoreli** (MS21) and **Ryan Shaw** (MS21), who met at the INI's 20th year celebration lunch when both were students. A native of Greece, Vicky was visiting from the Athens campus and the two hit it off. They started dating in August 2010 and supported one another through their INI journey.

Vicky says she knew he was the one when she would trudge home exhausted in the dead of winter to find her future husband had dinner cooked and an electric blanket ready. "Attending CMU with Ryan was like a crash-course in taking care of each other," she said. "Nothing like starting on a new relationship when you're sleepless, tired and perpetually busy!"

After marrying in August 2013, the couple settled in Pittsburgh. Vicky is a senior software engineer at Google and Ryan works for Alcoa as the manager of global security risk and architecture.

"We both moved to attend the INI, so we were able to make friends, explore Pittsburgh, and even hunt for jobs together," said Ryan. "It was certainly a bonding experience!"



Abhijit Deshmukh (MS16) and Ankini Shah (MS17) also met at the INI, and now work together at Microsoft. The couple started dating in 2006 and married in Mumbai two years later. They live in Seattle with their son Arvaan.

# From INI to CEO

Keanu Reeves played a role in naming Adam Cecchetti's (MS15) company, Deja vu Security.

"The name is both a reference to the black cat spotted by Reeves' character in the 1999 movie "The Matrix," which is caused by a glitch in the Matrix, and a nod to the fact we help our customers avoid seeing the same bugs over and over again," explained Cecchetti, who graduated from the INI's MSIN program in 2005.

Cecchetti founded Deja vu Security in 2011 and is the current CEO. The Seattle-based firm is a trusted provider of information security research and consulting services to some of the world's largest and most-esteemed technology companies.

"We help organizations that produce technology, from start ups to Fortune 500s, secure their products and services before attackers can exploit them," said Cecchetti.

One of the ways the firm accomplishes this mission is through its widely adopted security-fuzzing platform called Peach Fuzzer™, which helps customers find unknown vulnerabilities in hardware and software by "fuzzing" their own products. Keanu had nothing to do with this one: "The name comes from the fact that peaches are fuzzy," says Cecchetti.

Reflecting on the INI, Cecchetti says the program's best feature was the ability to take courses across various schools.

"It enabled me to get a well-rounded view of technology, business, policy and people," he said. "I personally continue to use the lessons learned while at the INI in many of my every-day conversations. The fundamentals helped in every aspect of working with technology organizations and founding security-focused organizations."



# **CLASS NOTES**

Good news in the lives of INI alumni around the world

#### **BIRTHS**

- [1] Baby boy, Quincy, on 3/25/15. Leo Boulton, MS16
- [2] Baby boy, Pedro, on 2/26/15. Inés Oliveira, MS19
- [3] Baby boy, Angelo Kobimtochi Zervas, on 10/13/15.

Chinwe Abosi. MS17 Athens

- [4] Baby boy, Carmel, on 12/6/15.
  Mila Gorodetsky Georgeson, MS22
- [5] Baby boy, Dante.
  Art Leyzerovich, MS07









#### CAREER MOVE

Karthik Suresh, MS18

Admitted to the MBA program at London Business School, resigning as vice president of KCG Holdings Inc.

#### RELOCATION

Rituparna Banerjee, MS19

Moved to Singapore in 2014 to join the performance engineering team at Lazada.

#### **AWARDS**

Panagiotis Zikos, MS14

Accepted as a member of MENSA International and earned his company the worldwide president award for *Outstanding Customer Loyalty Initiative*.



#### **MARRIAGES**

**Vijay Raghavan Ramanan**, MS23 Married MS23 **Gouri Joshi** on 1/26/14.

Aditya Parikh, MS21 Married Dr. Ayesha Vashi on 9/5/15.

**Devika Nair syama**, MS24 Married on 11/16/15.

**Krystal Nadine Ying**, MS22 Married Guion Yuvano Lucas on 2/6/16.

#### JOB PROMOTIONS

Marios Mpasoukos, Athens MSIN SENIOR SOLUTIONS ENGINEER, for Multiscreen OTT at Accedo

Ishdeep Singh, MS15 MANAGING DIRECTOR, First Southwest Company

Manoj Subramaniam, MS23 TEAM LEAD. DoubleDutch







Landon Fraser (MS17)
TEAM LEAD, Department of Defense

When Landon Fraser goes to work every morning, her efforts protect the U.S. military and support efforts overseas. "The mission is amazing," she said. "There are not too many other places where one can have the impact that I feel every day."

Government service had always been on her career radar, but after joining the federal CyberCorps **Scholarship for Service (SFS)** program at the INI, the decision became quite easy. In exchange for a two-year commitment working for the federal government, Fraser and other SFS students receive full-tuition funding.

"The SFS program allowed me to graduate debt-free from a prestigious university and secure a job that I love going to every day," she said.



### Invest in the INI

The success of the INI is a credit to the strong network of generous donors - alumni, students, parents, faculty, friends and staff - who give back and make a real difference.

ince its founding, philanthropy has been a cornerstone of Carnegie Mellon. Our tradition of giving can be traced back more than 100 years when industrialist and philanthropist Andrew Carnegie opened the Carnegie Technical Schools for the sons and daughters of the Pittsburgh region's workers. This tradition continues today through the generosity of alumni, parents and friends around the world.

Your investment in Carnegie Mellon advances the university's work: bringing together the most talented students with world-renowned faculty and staff to create innovative solutions to today's most pressing problems.

"I work in a tough industry, but am able to rise up to the challenge thanks to the excellent education I received, the Roseanne Silva Fellowship made that difference in my life."

**Yasmine Kandissounon**, MS24 Software Security Engineer, Rackspace

#### **Investment Opportunities**

Institute Naming

INI Building

Interview Room

Project Room

Interactive Studio Area

Interactive Teaching Cluster

DEC @ CIC and DEC @ Henry

Expendable Fellowships

**EWF-INI Fellow Fund** 

Graduate Student Fellowship Fund

INI Strategic Fund

Named Graduate Legacy Fellowship

#### **Endowment Opportunities**

Directorship

Joyce Brocaglia - EWF Endowed Fellowship Strategic Initiative Endowment Fund Innocent Habiyaremye Memorial Award

#### **How to Give**

Contact Jennifer Feyrer
Director of Career Services &
External Relations
jfeyrer@cmu.edu | 412-268-9292



Roseanne Silva (MSO2) Business CTO, Fortune 500 Bank



Mike Bruce (MS06) CEO, InScope International



The Class of 2015, the MS25s, graduated on May 17, with the INI's first director Alex Hills as the keynote speaker.

#### Why I give to the INI:

"For me, it really is about the next generation and enabling someone to realize their potential. This is a very prestigious organization and to be here is not cheap but there is so much talent and I am really awed by that. I encourage you to start early. You can build as you become more established in your career. Keep adding those zeros."

#### Why I give to the INI:

"If a family member calls and asks for assistance – you would give as much as you could. Give, help one another, we are a family and it is an amazing shared experience.

There are all types of different givers — some give purely out of self-interest because it will make your degree more valuable. Some of you are all about altruism — giving back to a new generation; some will be more pragmatic — you get another scam in your email or you hear about another break-in online, and you realize the INI still needs to exist and you need to give more because we haven't solved the problem yet."

# 5 things every alum should do

Connect on social media

Our Facebook and LinkedIn groups for INI alumni are valuable networking spaces for you to share and learn about job opportunities, talk shop and make business connections. Both are closed pages, which means only INI alumni will see what you post.



Stay in touch with INI

Our graduates go on to do great things at great companies and universities. In fact, you are the INI's strongest asset. We want to hear your good news, so please stay in touch.

Send us marriage, birth and new job announcements: bit.ly/INIclassnote

Tell us more about where you work and what you do, and you might be chosen to be featured in an alumni profile: bit.ly/

Update and verify your contact information with CMU: alumni.cmu.edu

Invest in INI

To those who have made a gift to the INI, thank you. To those who have not yet done so, consider contributing to an INI fund and make a Carnegie Mellon education possible for another student.

Learn about INI Alumni Leadership Council

Formed in 2010, its mission is to engage and strengthen the INI alumni network and help INI achieve its strategic goals. Contact Roseanne Silva to learn more: rkatsilva@gmail.com.

Mentor an INI student

Consider sharing your expertise through the CMU-INI Alumni Mentorship Program (CIAMP), a LinkedIn group where students ask questions about careers and industry.

Linked in bit.ly/ciamp

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