

Office of the Assistant Vice Provost for Educational Outreach

K-12 Educational Outreach Newsletter - March 2022

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Greetings Carnegie Mellon University campus contacts! The Office of the Assistant Vice Provost for Educational Outreach has compiled the information for this newsletter to serve as a new method for collaboration across campus partners. We hope that you will enjoy reading about the upcoming events and details from programs, departments, schools and colleges at our university and how they're connecting with the K-12 community! Subsequent issues of this newsletter will be sent out to our contacts on a bi-monthly schedule as we [receive news and updates](#).

Should you choose to be removed from this periodic newsletter, we will be sad to see you go, but you may do so by scrolling to the bottom of this newsletter, and selecting to either [update your preferences or unsubscribe](#).

March 2022 Headlines

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[Child to Work Day April 28th](#)

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picoCTF

picoCTF: The free, fun way to learn and practice cybersecurity

<https://picoctf.org>



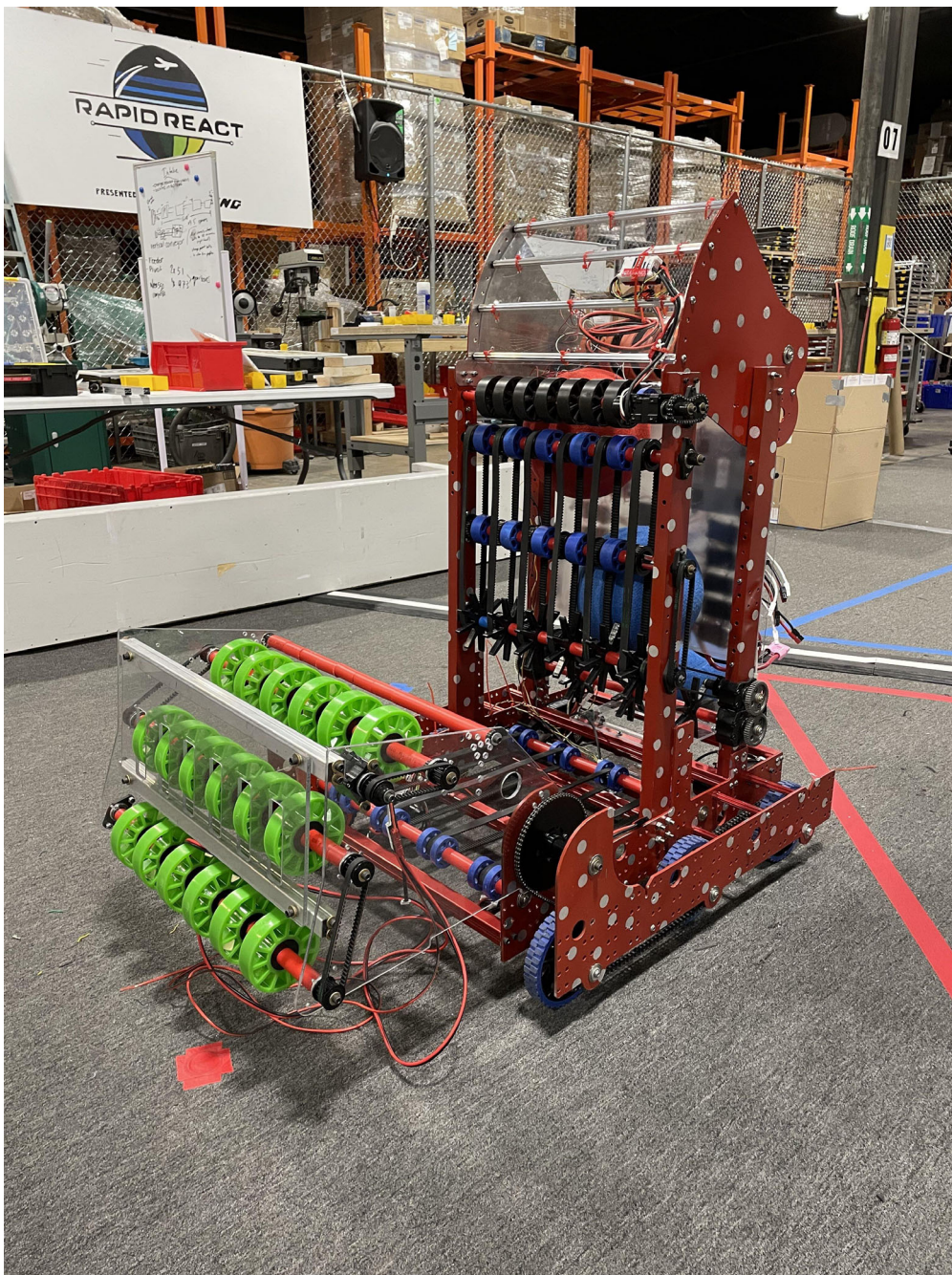
Gelfand Outreach Summer Program Series

The [Gelfand Outreach Summer Program Series](#) is designed to illuminate, encourage, and motivate our future scholars through week-long classes in science, technology, engineering, math, and arts. Classes are held on Carnegie Mellon University's campus in the Oakland neighborhood in Pittsburgh, PA. Daily Schedule 9 am – Noon.

Girls of Steel Robotics Getting Ready to Compete and More!

Girls of Steel Robotics held meetings and events virtually from March 2020 through October 19, 2021. Excited to be back to learning and building robots in person (except for January 2022), our students are getting ready for two FIRST Robotics Competition events in March 2022. Check out their 2022 robot, Lightning McQueen! In addition to building robots for competitions, Girls of Steel offers a variety of outreach programs.

Contact us at girlsofsteelrobotics@gmail.com for more information.





Summer Employment Opportunities for Science Majors and Computer Science Majors

The Pennsylvania Governor's School for the Sciences is a 5-week summer residential program for talented high school students, hosted each year by the Mellon College of Science at CMU. Our five Core subject areas are Biology, Chemistry, Computer Science, Mathematics and Physics. We are currently searching for undergraduates majoring in one of these five areas to serve as Teaching Assistant/Counselors. If interested, please visit the CMU Workday job application site for more details.

Go to [Workday](#) and type PGSS into the search window. General information about the PGSS program may be found at our website.

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April 28th is [Take Our Children to Work Day](#), brought to you by CMU Staff Council, this event is in-person this year and the organizing committee is looking for presenters. This year's theme for children ages 8-15 is "New Possibilities Create New Horizons."

Presentations are on Thursday, April 28th from 1:15-2pm & 2:15-3pm. You can present about a department initiative that you think would be appropriate for children ages 8-11 or 12-15, your job, your background, your goals, what it's like working at CMU and the challenges you face. If you're interested in being a presenter, please complete the [registration form](#). The submission deadline is April 1.

Questions?

Take Our Children to Work Day Committee: toctwd@andrew.cmu.edu

Co-Chairs:

Pattye Stragar

412-551-8763

George Cann



Carnegie Mellon University
Entertainment Technology Center

ETC in the Community and Upcoming Events.

The ETC, through the generous support of the Benedum and Grable Foundations, has been able to run a number of K-12 focused projects. Last semester, the department worked with West Liberty University to help 4th and 5th graders engage in [open-ended math adventures](#).

Another project saw the ETC collaborate with local non-profit [Rivers of Steel](#).

This semester (Spring 2022), we're thrilled to be working on three more transformationally focused projects. These include working with Hosanna House, Blue Stream Farms from Weirton, WV, and returning client West Liberty University.

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and events.

Finally, we're excited to participate in the upcoming [Remake Learning Days Across America](#) festival. Remake Learning Days Across America is an innovative learning festival for families and youth! Taking root in regions across the nation, these hands-on and engaging events are designed for kids of all ages at libraries, schools, tech centers, museums, play spaces, community centers and more. This year's festival is from April 22 – May 23, 2022. Stay tuned for more announcements about the event as well as upcoming news from the ETC!

Gelfand Student Educational Outreach Award Nominations

Each year, the Gelfand Center recognizes three students who have made a commitment to sharing their knowledge, talents, skills, and time to make a difference in the lives of children through educational outreach programs of Carnegie Mellon, with a priority for STEM educational outreach activities. 3 students will each be awarded \$250 to recognize their efforts.

This is a self-nomination process, with students submitting statements about their work and collecting letters of support from people who can comment on the impact of their educational outreach work. Typically one letter will be from an external contact and one from a Carnegie Mellon contact who knows about the work.

All nomination materials are due by Monday, April 4, 2022.

Questions can be directed to hallinen@cmu.edu.

For more information, a list of previous winners and a link to the registration form, please [visit here](#).

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Carnegie Mellon University

College of Engineering

College of Engineering Outreach Initiatives

In the College of Engineering, we are working to serve our PGH schools and out of school time (OST) partners by having CMU students, postdocs, and faculty, assist and teach engineering lessons in local classrooms. As a college, we aim to engage with local K-12 students in order to teach engineering through the lenses of cultural humility, and lifelong learning. In addition, the ECE Department is currently supporting an 18-991 PhD Teaching Internship that can be satisfied by doing K-12 outreach with local schools and out of school time providers in the Pittsburgh region.



CIT's Engineering Ambassadors (EA) also continue to regularly visit OST programs in underserved areas to work with elementary and middle school students. EA programs involve a presentation, a demo, and deliver hands-on activities for students.



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In addition to going into the community, the College of Engineering provides on-campus and virtual opportunities for K-12 students in the Allegheny County region. Spring semester programs include:

Recently held Spring programs: "Destination: Innovation" for 5th grade students, "Everyday Engineering" for MS students, and "SWE HS Day" .

Upcoming Spring programs:

- National Biomechanics Day (3/26 Zoom, and 4/2 in-person)
- Career Exploration virtual program for HS students on the intersection of engineering and entertainment technology and gaming (3/30)
- NSBE's (National Society of Black Engineers) "Walk for Education" (date tentative)
- Career Exploration virtual program for HS students on semiconductors (April TBD)
- Explore Engineering Expo for 3rd-8th grade (5/1)

Recurring programs:

- SWE's "SWE++ coding camp"
- ECE Outreach's "Spark Saturdays"
- Bi-weekly support at Community Forge's "BootUp"
- Robotics/ECE support at "Voices Against Violence"
- Local PGH classroom visits

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more information about some of these programs can be found [here](#).



**LET'S EXPLORE
SPACE!**

JOIN US FOR A DAY FULL
OF CREATIVITY! THERE
WILL BE GAMES,
ACTIVITIES AND
CRAFTS. LET'S LEARN
ABOUT SPACE!

March 20, 2022 | 3 - 5 PM
In Posner Hall at Carnegie Mellon
University!

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Students in 82-345: Community Connections have created this workshop for Spanish-speaking kids, ages 6-12. Spots are limited. [Register here!](#)

[El Círculo Juvenil de Cultura](#)



Have you heard about the Nexus of Civic Engagement?

There is a brand-new civic engagement-focused collaboration space on campus: the Nexus of Civic Engagement! What is the Nexus? A university-wide collaboration area centered around civic engagement work. A launching point for involvement in civic engagement activities here in Pittsburgh and beyond. A destination to meet people who are passionate about creating social change. A technology-forward space that will make connecting with community partners easier.

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What can I do at the Nexus?

Anything related to civic engagement! Attend events, participate in book clubs related to social issues, watch a documentary, attend office hours with civic engagement staff. You can reserve the space to host civic engagement events and meetings!

Where is the Nexus?

1st floor of the Cohon Center, adjacent to the SLICE office. Located next to the revolving doors just past the Info Desk.

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Mondays 8:30am-6pm, Tuesdays-Thursdays 8:30am-9pm, Fridays 8:30am-5pm,
and Sundays 1-7pm

Who can use the Nexus?

Any graduate or undergraduate student, staff, faculty, or community member
doing service, philanthropy, and/or advocacy efforts or engaged in political
participation or community building work!

Have questions?

Email cmunexus@andrew.cmu.edu or call us at 412-268-6060.

CMU K-12 Educational Outreach Directory

The Alice Project



Alice is an innovative block-based programming environment that makes it easy to create
animations, build interactive narratives, or program simple games in 3D.

Eric Brown

Director

[The Alice Project](#)

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Arts Greenhouse

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Career & Professional Development Center**Carnegie
Mellon
University**Career &
Professional
Development
Center

The CPDC empowers students and alumni to optimize their professional and life potential through career exploration, experiential learning, and connections with employers and opportunities.

Pati Kravetz

Associate Director for Experiential Learning & Student Employment

[Career & Professional Development Center](#)

CPDC Advising Center, West Wing, 2nd Floor

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Center for Architecture Explorations

The [Center for Architecture Explorations \(CAE\)](#) develops programs that serve unique Kindergarten-professional architectural education paths. The CAE builds on our School's experience with youth education, university service learning projects, engagement with the architectural practice, and academic research to explore ways we can support architectural education pedagogy and foster equity and diversity in building industry professions.

Jenna Kappelt

Manager of Outreach Programs

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El Círculo Juvenil de Cultura Hispanic Studies Outreach Program



Felipe Gomez

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College of Engineering

Carnegie Mellon University

College of Engineering

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Computer Science Academy



CMU CS Academy is a project in Carnegie Mellon University's School of Computer Science that has the goal of developing a novel, world-class, online, interactive high school computer science curriculum that is entirely free.

Erin Cawley

SCS - CMU [CS Academy](#) Program Manager

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Mellon College of Science | **Physics**

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ECE Outreach



ECE Outreach is program run by the Electrical and Computer Engineering department of Carnegie Mellon University that aims to provide high school and middle school students with opportunities to learn about and explore engineering through short lectures and hands-on labs. Run with the help of several volunteer undergraduate and graduate students, professors, and staff at CMU. All the materials are available on our website for free.

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Entertainment Technology Center



Carnegie Mellon University
Entertainment Technology Center

Providing leadership in education and applied research that combines technology and art, to explore learning, storytelling, innovation and entertainment, and to create experiences that educate, engage and inspire.

Imagine working with some of the smartest, most creative people on the planet to produce interactive media that's entertaining and engaging. Carnegie Mellon University's Entertainment Technology Center (ETC) excels at the intersection of technology, art and design. Here creative individuals are challenged to explore, experiment and collaborate to create games, designs and stories using the latest technologies.

John Balash

Director of Educational Engagement

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Mellon College of Science

Mentoring High School Students Towards Summer Session

William Alba

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National Robotics Engineering Center

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Robotics Academy

Carnegie Mellon Robotics Academy

Jesse Flot

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Office of the Assistant Vice Provost for Educational Outreach (AVPEO)

Leonard Gelfand Center

Carnegie Mellon University Leonard Gelfand Center

The Leonard Gelfand Center works with faculty, students and staff through on-campus and community-based activities that improve educational opportunities, especially in the areas of science, technology, engineering and mathematics education for youth. The Leonard Gelfand Center for Service Learning and Outreach was endowed by alumnus Mark Gelfand to create and strengthen partnerships with local schools and education providers.

Dr. Judith Hallinen

[AVPEO](#)

Director of the [Leonard Gelfand Center for Service Learning and Outreach](#)

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412-268-1498

- Supports faculty Broader Impacts work
- Point of contact for PA Act 48, [K-12 educator PD](#)
- Designs & implements K-12 programs
- Advises [StuCo](#) (Student College)
- Consults with CMU students wishing to pursue careers in K-12 education

Kristin Lavery

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- Business Manager & Department Initiator for AVPEO/LGC
- [StuCo](#) Course Administrator
- [Road to Research \(R2R\)](#) Programs
- [Gelfand Outreach](#) database developer
- [STEM Career Explorations and 360 Lab Tours](#) project manager
- Graphic & web design for AVPEO/LGC

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Program Director of the [Leonard Gelfand Center for Service Learning and Outreach](#)

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412-268-1863

- [Gelfand Outreach](#) Program Director for Saturday and Summer programs
- Creates schedule and calendar for Gelfand Outreach programs
- Organizes and provides support for on and off-campus STEM outreach activities
- Manages GO Teaching Assistants and office student employees

Program Administrator of the [Leonard Gelfand Center for Service Learning and Outreach](#)

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- Gelfand Outreach Program Coordinator
- [K-12 LGC Tutoring Coordinator](#)

Office of the Provost - Simon Initiative

Named for the late Nobel and Turing Award laureate and CMU Professor Herbert A. Simon, the Simon Initiative harnesses a cross-disciplinary learning engineering ecosystem that has developed over several decades at Carnegie Mellon. The initiative's goal is to measurably improve student learning outcomes.

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[BEST](#) - **Bioinformatics Education for STudents** & [Project GCode](#)

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picoCTF

Megan Kearns

Project Administrator

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Pittsburgh Supercomputing Center



Pittsburgh Supercomputing Center is a joint effort of Carnegie Mellon University and the University of Pittsburgh. Established in 1986, PSC provides university, government and industrial researchers with access to several of the most powerful systems for high-performance computing, communications and data storage available to scientists and engineers nationwide for unclassified research. PSC advances the state of the art in high-performance computing, communications and data analytics and offers a flexible environment for solving the largest and most challenging problems in computational science.

Project Ignite



Mahima Pannala

Vice President of Communications for Project Ignite

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Psychology Graduate Outreach Program

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Psychology Graduate Outreach Program

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Thank you to our contributors!

This newsletter is a collaborative project across CMU schools, colleges, departments, offices, programs and student organizations with information compiled and shared by Kristin Lavery of the Office of the Assistant Vice Provost for Educational Outreach and the Leonard Gelfand Center with the CMU campus community. We hope to expand our reach with each issue as this project grows and continually improves for our audience. If you have questions or comments about the individual articles, please reach out to the program contact directly. If you would like to add an additional CMU K-12 Educational Outreach directory listing or news item for subsequent issues of this newsletter, please contact [Kristin Lavery](#).



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