

ARCS

ARCS PITTSBURGH
NEWSLETTER
WINTER 2024

Message from the Presidents

Does anyone remember the *Jetsons*, the space age cartoon show that first aired in 1962? We can still visualize George walking his dog Astro on the treadmill “Dog Walk.” When Astro takes off after the cat, George is trapped on an accelerated treadmill, and calls out to his wife, “Jane! Stop this crazy thing!”

Jane had a robot named Rosie, and Jane accomplished housework with a push of a button. We never imagined we would see any of these things in our lifetimes!

Fast forward to 2024 and look how much of these “space age” concepts are now reality. Technological advances have grown exponentially. It’s hard to even dream of what the future holds.

It’s exciting to know that ARCS plays a part in supporting cutting edge research, shaping new scientific innovations in the United States. Over our sixty-five-year history, ARCS has supported more than **eleven thousand scholars** at **fifty universities** across the country. ARCS scholars research focus spans more than forty different areas of study from atmospheric sciences to oceanography and everything in between. ARCS scholar alum **Heidi B. Hammel**, PhD, was inducted into our Hall of Fame in 2023 for her contributions to astronomy. She is one of fourteen distinguished alumni who have been recognized for their significant accomplishments and contributions to science.

All of this has been made possible from the generosity of **women** offering their time, talent, and financial gifts. Jane Jetson would be proud!

“It’s exciting to know that ARCS plays a part in supporting cutting edge research, shaping new scientific innovations in the United States.”

Anne Crawford & Linda Thier

Co-Presidents
ARCS Foundation Pittsburgh



Does It Add Up?

As I've mentioned before, I was an English major. Math was never my strong point. So sometimes I still have trouble figuring out if things really add up. For example, one of the greatest mathematical quandaries I face now that I've turned thirty-five is how I can have three children who are fifty-three, fifty, and forty-seven respectively? It's some sort of crazy equation that I haven't been able to solve. Still working on that one.



A second math concept that didn't mean that much to me when I was actually thirty-five was the whole idea of "return on investment (ROI)." For many years, that was a hypothetical, mysterious, and mainly irrelevant formula in my daily life. Now, since I have to admit to the rest of you that I'm not really thirty-five, the idea of return on investment is a much more present reality in my life—one which basically determines whether I can have steak for dinner or not! I'm pretty sure I am not the only ARCS Pittsburgh member who has come to embrace the importance of this formerly uninteresting bit of arithmetic's impact on my daily life.

Having said that, it has become apparent to me that ROI is a vital component in the life of the ARCS Pittsburgh organization and our ability not only to sustain our mission but expand it exponentially over time. Thinking long term by investing in a scholar award endowment does

just that. At least, I assumed it would. So, I was curious and decided to check it out. As you may remember (since I keep telling you), we currently have twelve endowed awards (seven at CMU and five at Pitt) contributed by thirty-one individual donors and ARCS members through a Chapter match. These endowments began in 2018–19 with four \$20,000 contributions. Five years later, here are the numbers:

- Total endowment gifts received to date from individual donors and the Chapter: **\$855,000**
- **Thirty-four** annual scholar awards of \$5,000 each have already been distributed to scholars for a total of **\$170,000** paid out, thanks to a combination of returns on the invested gifts and bridge funding provided by the Universities
- Total current market value of the endowments: **\$941,000***
- My third-grade math skills tell me that, in addition to any returns paid out in awards, this is an increase in assets of **10 percent**.
- To top it off, another **twelve** awards will be given out in FY25 (Fall 24 and Spring 25) for \$60,000 for a grand total of **forty-six** awards totaling **\$230,000** in scholar support since the endowment initiative was created.

Albert Einstein is said to have referred to compound interest as "the most powerful force in the universe." ARCS Pittsburgh has done well to tap into that! I encourage all of you to think about tapping into that force yourselves in order to maximize your own personal impact on the mission of advancing science and scientific innovation in America. It's exciting to see how your endowment contribution could add up.

Jeanne B. Berdik

Chair, ARCS Pittsburgh Endowment Committee

Jeanne.berdik@verizon.net

412-443-5495

*Data supplied by CMU and Pitt

Spotlight on Scholars—Carnegie Mellon University

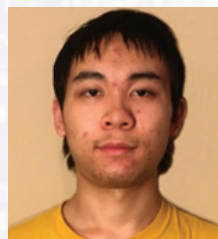
William Ferguson is an entering PhD student at Carnegie Mellon University's Material Sciences and Engineering Department in the College of Engineering. He is serving as a graduate research assistant specializing in computational modeling of polymer systems. In addition to a 2023–25 ARCS Pittsburgh Scholar Award (**The Fleischner-ARCS Pittsburgh Member Award Endowment**), he also received the CMU Chemical Engineering Faculty Award (both in May 2023)

He received his BS in chemical engineering from the University of Virginia (UVA) and served as an undergraduate research assistant gaining experience in experimental and computational R&D of materials. His focus and interests have been on the applications for polymers and composites. While at UVA, he also served as a teaching assistant in three different undergraduate classes and was recipient of the Robert Thomason Scholarship (May 2022), which recognizes chemical engineering students who have demonstrated exceptional academic achievement. In the same year, he received the Gregory J. Canty Research Award, which funds an outstanding undergraduate student who proposes a project to be carried out in the summer and subsequent academic year following application. The award recipient is a student who demonstrates creativity in translating knowledge and skills into practical engineering solutions or products and who is known for their caring and helpfulness towards others.



Colin Tang is a first year PhD student in the Mathematical Sciences Department of the Mellon College of Science at Carnegie Mellon University. He is receiving the (2023–25) **ARCS Pittsburgh Scholar Award Endowment in Memory of Jack and Gen Esgar**, funded by Amy and Keith Arner.

While in high school in Bellevue, Washington (across the lake from Seattle),



Colin won first place in the 2019 International Math Olympiad and also led the US team to win first place, tying with China. During his undergraduate studies at

MIT (from which he graduated with a degree in mathematics with a 4.8 GPA), he showed his continued math prominence by being a ranked winner in the Putnam Mathematical Competition. The Putnam Competition, which began in 1938 and includes schools from the United States and Canada, is the most prestigious undergraduate mathematics event of its kind.

While showing his math talents, he filled his summers with internships that applied and expanded his skills. He interned in at Jane Street, using statistical tools to find signals in historical market data; at Amazon in Seattle, creating an animated test failure logger; and at Biotech, using sophisticated coding tools to identify drugs with more adverse effects than average.

Happy News!

Congratulations to Pitt Scholar
Emmanuel León Colón!
He married June 23rd.

Emmanuel and his bride
(Photo courtesy of Emmanuel León Colón)



ARCS 2023 Donor Appreciation Reception

An interesting time was had by all at the 2023 Donor Appreciation Reception on October 23, 2023. Hosted by Carnegie Mellon University in the Tepper Building, the event was a chance to meet new and returning scholars, and catch up with other ARCS members, donors, and friends.

ARCS Co-Presidents **Linda Thier** and **Anne Crawford** began the program, and gave an overview of the generosity of all our donors. They highlighted existing and new Endowed Awards, Named Awards, and membership category donors. The featured speaker was **Shelley Anna**, CMU Professor, Department of Chemical Engineering and Vice Provost for Faculty

Courtesy Appointments, Department of Physics and Mechanical Engineering.

Michelle Zorilla, ARCS Chair of Scholar Relations, then introduced scholar presentations from both Carnegie Mellon and University of Pittsburgh, where we learned about all the places our paper currency manages to get to. Third-year scholars **Nicole Auvil** and **Kellie Spahr** gave overviews of their research. Finally, all the scholars in attendance, more than twenty of them, also introduced themselves and told a “fun fact” about

themselves. It was a wonderful opportunity for the scholars to show a personal side of themselves, not directly tied to their academic and research work.



Shelley Anna, CMU Vice Provost for Faculty
(Photo by Keith Arner)



Scholar Award Allocation

14

ARCS Pittsburgh is pleased to announce that **twelve** new scholars will be selected by the University of Pittsburgh and Carnegie Mellon University for the upcoming 2024–2026 award cycle. Six of these awards have been allocated to Pitt, with one the result of a new endowment. Of the six new awards for CMU, one is the result of a new endowment and two will be new scholars selected from existing endowments. We will share information

regarding our new scholars after they are selected by the Universities.

These new awards will bring our impressive cumulative scholar count to **109** scholars at CMU and **79** at Pitt representing award dollars of **\$1,543,500** at CMU and **\$1,054,000** at Pitt.

Thank you to all members who have contributed to make these numbers possible.



Join us for a Tour of Magee-Womens Research Institute

Date: Wednesday, March 20th

Time: 5:30 – 7:30 PM

Location: Magee-Womens Research Institute
[204 Craft Avenue, Pittsburgh, PA 15213](https://www.mageewomens.org/visit)

ARCS Forward

Michael Feffer, one of our scholars at CMU, will be a featured speaker in a program about artificial intelligence on February 8th. More information is available at <https://www.arcsfoundation.org/civicrm/event/info?id=2356&reset=1>.

ARCS Pittsburgh Webinar— AI and Humanity

Join us for on Monday, February 19th, at noon for a virtual discussion featuring **Dr. Illah Nourbakhsh** (Kavcic-Moira Professor of Robotics, Formerly K&L Gates Professor of Ethics and Computational Technologies; Executive Director, Center for Shared Prosperity; Director, CREATE Lab; The Robotics Institute, CMU) and **Dr. Jennifer Keating** (Teaching Professor and Writing in the Disciplines Specialist in the William S. Dietrich II Institute for Writing Excellence, University of Pittsburgh). They will discuss their book *AI and Humanity*. A Zoom registration link will be sent soon via email.

Chapter Tour

Join us chapter for a private tour of the Magee Women's Research Institute (MWRI) on March 20th. The event will run from 5:30 pm to 7:30 pm. **Mike Annichine**, president of the MWRI Foundation, will provide an introduction to the institute. There will be valet parking for attendees.

Celebrating the Past, Empowering the Future

Mark your calendar for June 5th through 9th at the Sheraton Riverwalk in Chicago where ARCS Foundation will be hosting the All ARCS Conference. The conference will feature several noteworthy speakers, including **Cassa Hannon**, a team and leadership development consultant, and **Judith Giordan**, PhD, chemist, businesswoman, and professor of practice at Oregon State University. The conference will also provide opportunities to

take in the local sights via architectural and art tours. The highlight of the conference will be the **ARCS 65th anniversary gala**. More information and registration links will be coming in February, watch your email!

The national conferences are a wonderful way to network and connect with members from all of our fifteen chapters. Several members of the Pittsburgh chapter have already committed to attend. Spouses and guests are invited. Hope you are available to join us!