



ELPE

EXPERIENTIAL LEARNING AND
PROFESSIONAL ENGAGEMENT

SPRING 2024

NEWS

Biannual Publication of the
University of Pittsburgh
Swanson School of Engineering

* And the Winners are...

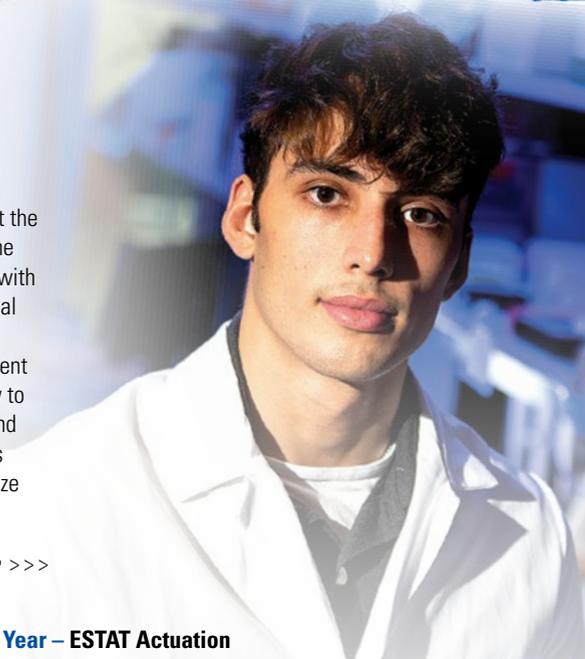
Each year the Co-op program awards a Co-op Student of the Year and a Co-op Employer of the Year. Here are our winners in 2023.

Co-op Student of the Year AND the 2024 National CEED Co-op Student of the Year Benjamin Leslie

This year, our ELPE Co-op Student of the Year has the additional honor of being named the 2024 National CEED Co-op Student of the Year by the American Society for Engineering Education (ASEE)! This competitive national award recognizes excellence among engineering co-op students and comes with a cash award and an invitation to the organization's 2024 Conference for Industry and Education Collaboration in California.

A senior bioengineering student in his final semester, Ben has filled up his time at Pitt, completing a yearlong rotation with Zoll as a Human Factors Co-op, performing research at the McGowan Institute for Regenerative Medicine into polymer-based heart valves for children with congenital heart defects, working as a medical assistant at UPMC Shadyside Hospital, and leading Pitt's hockey team as a full-time student athlete and captain. He has had to learn how to pace himself to balance all of his interests and ambitions. In reflecting on his many activities at Pitt, Ben says "My overall advice is to utilize the time you have as an undergraduate to its

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Co-op Employer of the Year – ESTAT Actuation

When a student sends in their end of term co-op evaluation for ESTAT Actuation, Pitt's Co-op Director Chris knows before she starts that she will be reading a glowing review. Statements like "ESTAT is truly an exceptional company with a high-achieving team that is committed to excellence. I'm grateful to be a part of this team," and "I went into the co-op expecting just to run tests, but I was offered chances to innovate and give input every day. It was great to be able to give input and have it actually be listened to as a co-op" are just a few examples of the consistent feedback from their co-ops since the company began their co-op program in January of 2022.

Although newer to co-op, ESTAT Actuation has hired 12 Pitt co-ops since the program's inception and has provided great hands-on experience, project management, and leadership skills to our students in a real-world working environment. ESTAT Actuation builds electroadhesive clutches and brakes that are 10x lighter, 10x more compact, and 1000x more efficient than conventional clutch hardware. Their customers use these products to create robot designs that were previously infeasible in the mobile robotics, logistics robotics, wearable robotics, and manufacturing verticals.

Congratulations to ESTAT as our 2023 Co-op Employer of the Year and thank you for your partnership with the Swanson School of Engineering and the Co-op program!



Co-op Student of the Year... *continued from previous page*

fullest extent. There are many opportunities all over the University, but you have to be willing to put yourself out there to pursue them... once you find those few things you genuinely enjoy, do everything you can to explore, grow, and develop in those areas."

Before entering his co-op, Ben gained extensive cardiovascular knowledge and research experience under graduate student Drake Pedersen in the Wagner/D'Amore Cardiovascular Engineering Lab in the McGowan Institute for Regenerative Medicine, working on a new form of polymer heart valve that builds upon itself with patients' own cells, bypassing the issues of replacement and ill fit that can come with traditional mechanical heart valves. Completing undergraduate research prepared Ben to enter industry. "My time in the lab has helped me understand how to conduct thorough background research and review current literature before jumping into a project. Gaining this skillset has helped me leverage many concepts and techniques I was unfamiliar with to improve processes at ZOLL."

During his yearlong co-op, Ben worked on the garment team on Zoll's LifeVest product, a

wearable cardioverter defibrillator for people at risk of heart attack. He ran a study testing usability and function of the product to improve ease of assembly and patient comfort, working directly with study participants to collect data and feedback, and using that information with his team to prototype a new belt for the LifeVest to sense temperature and improve patient comfort. In discussing his decision to gain a year of industry experience before graduating, Ben says "I felt that pursuing a co-op was a crucial part of my education. There are so many abstract and soft skills inherent to industry that students are not exposed to unless they put themselves into that environment." Ben's co-op at Zoll allowed him to see how medical products are implemented firsthand, and how a diversity of human factors and patient medical conditions – color blindness, arthritis, etc. directly affect the design process.

Post graduation, Ben plans on attending medical school and continuing to research and design life changing medical products. "Ultimately, I want to work at the interface of medicine and engineering such that I can discern a clinical problem, create and develop a solution that can address this issue, and then utilize that solution to improve patient outcomes and quality of life."

Congratulations, Ben, on your ELPE and ASEE wins. We look forward to your future successes!

Picking a winner was a challenge. So many talented students have succeeded in their co-ops. Congratulations to the other students who were nominated.

Finalist

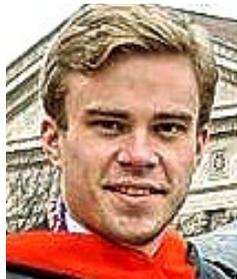
Lena Welker



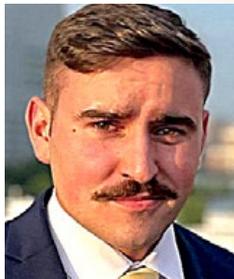
Honorable Mentions



Cara Buck



James Clark



Brett Craskey



Chelsea DeSalve



Sophia Lex



Karinna Martin



Maxwell Olesen



Pocket Pizzuttillo



George A. Strish IV

IN THE SPOTLIGHT

Intern Spotlight

Jack Carnovale

One of the Swanson School's newest electrical engineering graduates, Jack Carnovale completed his undergraduate program in December 2023 and began his master's in electrical engineering at Pitt this past January, where he plans to focus on the dynamic modeling of electric vehicle chargers. While in his undergrad at the Swanson School, Jack completed two summer internships at Eaton in their Pittsburgh and Cleveland locations, working in Power Systems Controls at his first placement and as a Field Service Engineering Intern at his second, as well as serving as the company's Pitt campus ambassador for university recruitment events.



In Power Systems Controls, Jack coded and designed a testing simulator to test the coding of Programmable Logic Controllers (PLC) of generators and breakers, allowing the other engineers to easily test their PLC logic before installation and ensure that there would be no loss of power for critical places like hospitals and data centers. Shifting to the Field Service team in Cleveland for his second summer with Eaton, Jack says that "most of my summer in field service was busy out on jobsites repairing, installing, and troubleshooting equipment. I

was actually utilized as necessary labor and a member of the team. This was something I never thought I would experience as an intern." In his internships, Jack gained exposure to large power systems equipment that he wouldn't have worked with in an academic setting. By completing multiple rotations within different areas of Eaton, he was able to practice a range of technical and soft skills, from wiring, mechanical and power use tools, troubleshooting mentality and determination, and public presentations, as well as building a stronger network within the company.

Next summer, Jack plans to intern with Eaton as a Power Electronics intern. He has a few takeaways for students looking to have a similarly successful internship experience with a company:

- Always ask questions. You're an intern, so it is expected that you don't know everything.
- A good team is everything. Having a good team to intern for will ensure that you get the most out of the experience. My team in Cleveland treated me like one of them, and we even did some things outside of work like kayak and go to a county fair. They kept me involved and answered any of my questions onsite. I had a great boss, mentor, and team.
- Building a strong network at a company is valuable for someone our age, especially if you think you could like to work at that company after graduating. It will make the hiring process simpler, and the network you build will help you get connected to positions of interest in that company. From working as a campus ambassador for Eaton, I can say that networking is a huge part of their hiring process. They get thousands of applicants, so you have a better chance of getting an interview if you get facetime with the company either at a career fair or at one of the events they hold on campus.

Congratulations, Jack!

Grad Student Spotlight

Erick Carranza

Erick Carranza is a fifth year bioengineering PhD student in the Rehab Neural Engineering Labs (RNEL). He completed an internship at Presidio Medical in San Francisco, CA during summer 2023. As an Innovation Intern, Erick evaluated and validated a potential new application for the company's neurotechnology in a new market. He stated, "My internship allowed me to learn that I could successfully apply my research skills as a PhD student to a completely new field" and hopes to find a similar job in industry upon graduation in 2025. Erick encourages other PhD students who are interested in an internship experience to take the leap and gave the following advice: "I believe an internship can give you the opportunity to try something new and exciting, while taking a break from your research. It can help you learn new skills or consolidate some you already had. It can help us figure out if we would like to follow an academic or industry path. But most importantly, it can help you meet new and amazing people that will help you develop a strong network."

Congratulations, Erick, on your continued success!



Swanson School of Engineering 2023 Graduating Co-op Students

These students completed three semesters working in industry and were awarded co-op completion certificates and graduation cords. Congratulations to all of the 2023 co-op graduates!

Bioengineering

Chitluru, Nishant
Eisenhart, Evan
Ferrell, Jordan
Gorges, Emily
Lynch, Emma
Malhotra, Pragya
Martin, Garrett
Reimenschneider, Jeremy
Steinberg, Jessica
Usilton, Kristyn
Whittaker, Melody
Wilson, Sida
Yatsenko, Yulia

Chemical Engineering

Barash, Benjamin
Bartoletta, Dana
Bebenek, Gabrielle
Bilski, Joseph
Brokaw, Alexander
Cotton, Sean
Demaio, Ruby
Donnelly, Dillon
Dunleavy, Michaela
Fisher, Nathaniel
Harris, Katie
Harris, Max
Kelly, Deirdre
Landis, Colin
Lawson, Dylan
Lipinski, Daniel
Luxemburger, Joshua
MacElroy, Ryan
Morganstein, Gillian
Papazekos, Ekaterini
Power, Ryan
Prein, Hayden
Sisti, James
Smith, Emma
Steinley, Isabella
Thiyagarajan, Vidhya
Thorpe, Maria
Welker, Lena

Civil Engineering

Aker, Quinn
Blake, Alexander
Clark, James
D'Andrea, Nicholas
Gormley, Connor
Graff, Jake
Grealy, Callum
Hessler, Aimee
Holstein, Ariel
Johnson, Benjamin
Martz, Thomas
McCausland, Bailey
Mikovitz, Griffin
Schmidt, Faith
Siddiqui, Aiza
Siedlecki, Caroline
Tirpak, Christopher
Wilson, Jenna

Computer Engineering

Bayer, Quincy
Bertola, Peter
Black, Joseph
Cheezum, Thomas
Craskey, Brett
Da Costa, Stephanie
Dill, Mason
Faseru, Molayo
Fay, Owen
Frost, Jarrod
Garrison, Christopher
Gordon, Sierra
Green, Rebecca
Harnishfeger, Justin
Henning, Cameron
Hess, Bryan
Howe, Trent
Love, Madeline
Lytle, Matthew
Morsy, Yasser
Niksic, Sead
Panning, Hudson
Scott, William
Stevens, Patrick
Turocy, Karen
Wilkinson, Alexis
Wilton, Elissa

Electrical Engineering

Aiyegbusi, Olutimilehin
Cosgrove, Leo
D'Arcy, Nicholas
Galloway, Stanley
Guiher, Christopher
Hale, Chloe
Killmeyer, Margaret
Leatherman, Carter
Lubin, Josh
Lydon, Madison
Montrose, Kyle
Rayburg, Alex
Sarkey, Kamden
Smith, Jake
Walker, Amanda
Wettasinghe, Caileigh

Environmental Engineering

Honan, Kate
Kantorczyk, Samantha
Kaufman, Robin
Lex, Sophia
Robinson, Craig
Roth, Leah
Taljan, Casey

Industrial Engineering

Abel, Zoe
Amentler, Alexander
Carver, Nolan
Chimes, Thomas
Ching, Kenneth
Cuddy, Joshua
Givler, Gloria
Helkowski, Taylor
Joynes, Anaya
Lenherr, Lauren
Lipa, Nicole
Luciana, Maria
Malik, Ahsen
Marcus, Alyson
McCaffrey, Andrew
McCormick, Matthew
Polar, Andrew
Reynolds, Michael
Sidelnikov, Elizabeth
Weintraub, Isaac
Zakroski, Kyleigh
Zinn, Andrew

Mechanical Engineering

Armstrong, Michael
Baggett, Ryan
Bard, Devyn
Bateman, Brydon
Bereck, Mark
Blyznak, Mark
Borkowski, Matthew
Buonato, James
Davidson, Molly
Dominick, Gabriel
Fritzsche, Elisa
Harrington, Lauren
Kenny, Tyler
Legleitner, Darius
Lestourgeon, Rebecca
MacDonough, Michael
Maule, Trace
Morafa, Halima
O'Malley, Katherine
Pineiro, Elian
Ramsey, Lucas
Riberi, Dustin
Richards, Andrew
Rosenthal, Daniel
Rossetti, Cara
Schreiber, Carson
Seth, Justin
Sideris, Lia
Spangler, Raymond
Stricklin, Andrew
Tost, Ethan
Tran, Ryan
Varblow, Juliet
Zemanek, Katherine

Materials Science and Engineering

Grugan, Emily
McElhinny, Scott
Zilavy, Andrew



ELPE Staff Receives Team Award!

This past year the Experiential Learning and Professional Engagement (ELPE) team, which includes co-op and internship, global, and corporate engagement staff, won a 2023 Swanson School of Engineering Professional Excellence Award, in the category of Supporting Student Excellence Teamwork. We look forward to another successful year of supporting our Pitt students!



Pictured from left to right: Interim, U.S. Steel Dean of Engineering Sanjeev Shroff, Lauren Smith-Lemesh, Alicia Olalde, Jodi Suckle, Tyler Kimmel, Dana Romano, Valerie Kerr, Emily Kern (not pictured Chris Frankovic)



▲ **Cara Buck**, electrical engineering co-op at Volvo Construction Equipment and nominee for 2023 Co-op of the Year, collecting test data at a construction job site.



▲ Mechanical engineering student **Stephanie Manasterski** completed her last co-op rotation at the aerospace startup Gravitics. Here she welds components together for a project prototype.

▶▶▶ **LinkedIn** SSoE ELPE office now has a LinkedIn page! Connect here!

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