



# ELPE

EXPERIENTIAL LEARNING AND  
PROFESSIONAL ENGAGEMENT

SPRING 2024

# NEWS

Biannual Publication of the  
**University of Pittsburgh**  
Swanson School of Engineering

## \* And the Winners are...

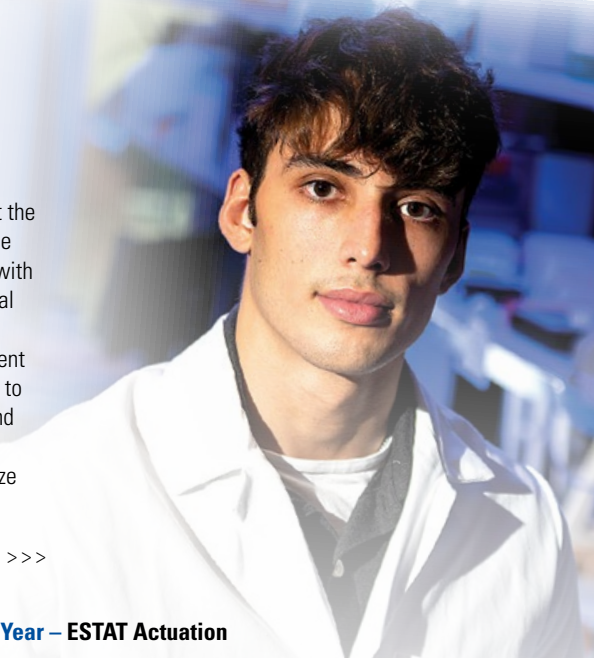
Each year the Co-op program awards a Co-op Student of the Year and a Co-op Employer of the Year. Here are our winners in 2023.

### **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.

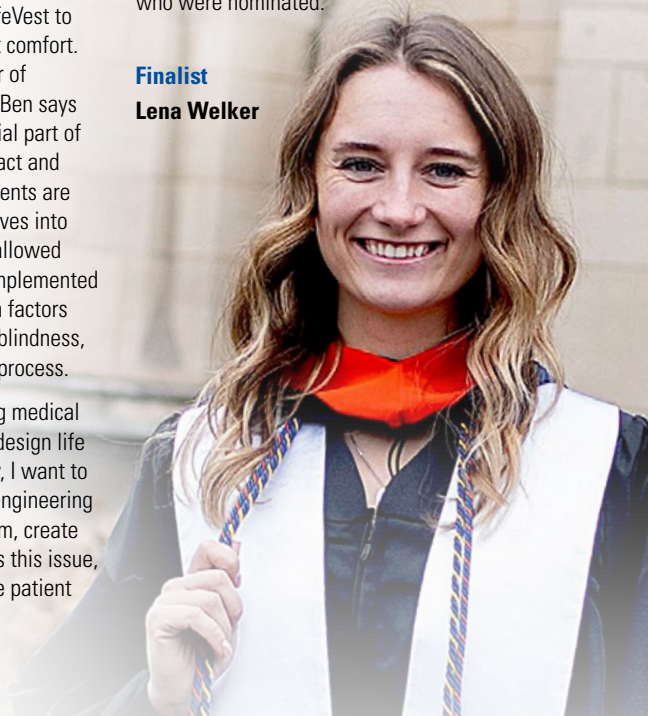
Post graduation, Ben plans on attending medical school and continuing to research and design life changing medical products. "Ultimately, I want to work at the interface of medicine and engineering such that I can discern a clinical problem, create and develop a solution that can address this issue,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

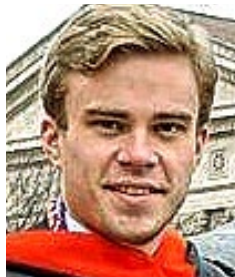
**Lena Welker**



### Honorable Mentions



**Cara Buck**



**James Clark**



**Brett Craskey**



**Chelsea DeSalve**



**Sophia Lex**



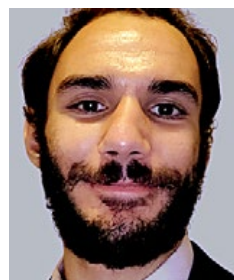
**Karinna Martin**



**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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[engineering.pitt.edu/coop](https://engineering.pitt.edu/coop)

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