



PURDUE
UNIVERSITY

Office of Professional Practice

ANNUAL *REPORT* 2021-2022

FROM THE DIRECTOR

Luna Lu | Director, Office of Professional Practice



Dear Boilermaker Family,

As the Director of the Office of Professional Practice (OPP), it is with great pride that I share the latest accomplishments that our office achieved in the 2021-2022 academic year. Thanks to the tireless efforts the OPP staff, our office has hit record growth in its offered programs, student enrollment and employer engagement.

At Purdue, we believe "OPP stands for Opportunity." Our mission is to enable students to reach their full potential by providing work integrated learning opportunities in experiential education, professional practice and technical

skill-based training. Throughout the academic year, we engaged 8,500+ students through co-op fairs, program information sessions, academic courses, workshop and more. We commensurate the achievements of 1,675 students and celebrate 771 active co-op students, along with our 250+ active corporate partners. Our Global Engineering Alliance for Research & Education (GEARE) program matriculated 60 students abroad in 13 countries around the globe. We also funded 18 student summer internships in 10 Indiana startups, to help boost economic growth and workforce development in our home state. Our Milestones program provided 185 students with hands-on learning opportunities and a micro-certificate on engineering and prototyping skills.

Our team's creative mindset enables us to provide students with more flexible co-op programs and opportunities. Three major achievements I am proud to highlight are summarized below:

Launched a new model of co-op, Learning While Working (LWW), which empowers students to gain a year-long, continuous work experience (also earning a competitive salary), while making substantial academic progress to avoid graduation delays. Compared to traditional programs, this offers more flexibility with a holistic learning experience for students. It is particularly beneficial to those from low-income families and underrepresented groups. Throughout the past five months, we have built strong corporate partnerships and a clear pathway to equip hundreds of students.

Developed a streamlined and centralized Co-op experience course, which will collect rich data on co-op experiences including goal setting, reflection, resources, work experience, employer feedback and more. This is accomplished through a collaboration between OPP and Engineering Education, Institutional Data, the Office of Experiential Education and 40+ Co-op coordinators across eight colleges here on campus.

Our agile programs emerge stronger than pre-pandemic numbers. Thanks to the creative thinking and execution of our team, we have achieved nearly 15% growth in student enrollment during the last year. Our flagship international co-op program, GEARE, continued to provide students with global experiences, even when travel was not possible. ENGR 103, professional skills courses, industry knowledge courses and Milestones technical skills programs continue to enrich our student engagement and experiences with an exciting trajectory for more rapid growth in 2023.

We believe this is only the beginning of our continuous innovation and new developments in experiential learning and professional practice education. We look forward to providing more exciting opportunities to enable our next generation of Boilermakers to become industry and academic leaders and to contribute to the Pinnacle of Excellence at Scale at Purdue University and Beyond!

Boiler Up!

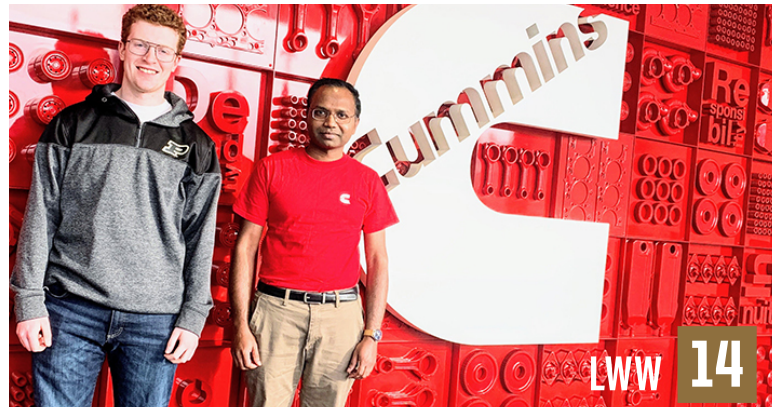


TABLE OF CONTENTS

- 04 OUR PROGRAMS**
- 06 OFFICE UPDATES**
- 08 HALL OF FAME**
- 12 OPP IMPACT**
- 14 LEARNING WHILE WORKING**
- 16 ENGR 103 COURSES**
- 18 GET IN GEARE**
- 20 EVENTS & ENGAGEMENT**
- 22 BECOME A CORPORATE SPONSOR**
- 24 OUR CORPORATE SPONSORS**
- 26 SCHOLARSHIPS**
- 28 ALUMNI SPOTLIGHTS**

OUR PROGRAMS

COOPERATIVE EDUCATION

Purdue Co-op has been the premiere professional work experience program at Purdue University for over 60 years. Students participating in the program can earn an academic certificate upon graduation and enhance their academic knowledge with practical skills through progressively challenging work experiences with industry partners. Purdue's Industry & Extensive Industry co-op models (defined below) for undergraduate students can result in 12-20 months of work experience. Co-op provides students with an in-depth knowledge of a company and more than 80% of Purdue co-op students earn a full-time offer with their company prior to graduation. Graduate students may participate in the Master's co-op program, which allows students to complete a 6 to 12-month work rotation with an employer prior to completion of their degree.

After extensive conversations with top co-op universities in the U.S. and Canada, internal conversations with faculty, co-op coordinators, and students, and external conversations with industry partners, Purdue has updated the co-op certificate program. This update provides greater access and flexibility to both students and employers.



INDUSTRY CO-OP CERTIFICATE

The Industry Co-op Certificate is awarded to students who complete approximately one year of full-time work (at least one fall/spring semester) experience related to their academic field of study. Students are required to register for a cooperative education course during each academic term for which they are engaged in full-time work with an employer. Students are required to complete a minimum of three work terms. Students should have a progressive experience, with a minimum of two work terms occurring with the same employer. Students must complete all necessary requirements specific to their academic discipline.

EXTENSIVE INDUSTRY CO-OP CERTIFICATE

The Extensive Industry Co-op Certificate is awarded to students who complete approximately 18 months or more of full-time work experience related to their academic field of study. Students are required to register for a cooperative education course during each academic term for which they are engaged in full-time work with an employer. Students are required to complete five work terms. Students should have a progressive experience, with multiple work terms occurring at the same employer. Students may change employers one time. Students must complete all necessary requirements specific to their academic discipline.

GLOBAL ENGINEERING ALLIANCE FOR RESEARCH AND EDUCATION (GEARE)

GEARE is Purdue's premiere global professional training program. The program is currently available to students from all engineering disciplines and computer science. GEARE students enhance their global competency by completing language study, one semester of study abroad, a minimum of one domestic internship, a minimum of one global internship, three one-semester cultural training seminars and a minimum of one global design team project. Amid the COVID-19 pandemic, GEARE students participated in remote global projects along with students from universities in Ecuador, Germany and Mexico. New projects are continually being developed and remain a feature of the program.

The Office of Professional Practice develops relationships with world-renowned university partners and global industry partners interested in developing future employees with top of the line technical and global skills. Our office has strong partnerships with universities and global employers operating in the U.S., Brazil, China, Colombia, Ecuador, France, Germany, India, Italy, Japan, Mexico, Singapore, South Korea, Spain and Sweden.

GEARE utilizes the Intercultural Development Inventory (IDI) and a series of a courses to help students maximize their growth in global competency. Research conducted by Purdue's Center for Intercultural Learning, Mentorship, Assessment and Research (CILMAR) finds GEARE to be one of the most effective programs in the U.S. in encouraging global competency development among its participants.

INTERNS FOR INDIANA (IFI)

The Interns for Indiana program connects entrepreneurially-minded Purdue University students to Indiana startup and early-stage companies in order to promote economic development, enhance student success, and provide professional opportunities to high performing students. Throughout the past two years, 450+ students have applied to be apart of the program and 30 students have been awarded internships. OPP currently assists with stipend funding for current students and hopes to expand programming. Students will complete their internship during the summer. The Office of Professional Practice offers funding to help these companies hire student talent.

MILESTONES

The Milestones program was created in 2019 to enhance technical skills to supplement and knowledge gained in the classroom. Milestones modules average 15 hours of hands-on education in a particular technical field. The modules are currently offered for free to Purdue students. Students successfully completing a Milestones module will earn a certificate. Milestones modules include CAD/3D Printing, Finite Element Analysis and Fabricating Composites (Prototyping and Manufacturing Family), along with Arduino Programming, Introduction to Electronics, Biomedical Instrumentation and an electronics capstone project on Designing a Smartwatch (Electronics and App Development Family). The Milestones program aims to enhance the technical abilities of Purdue students while providing industry with co-op students and interns ready to make an impact.

LEARNING WHILE WORKING

Learning While Working (LWW) is a new co-op model allowing students to gain a year-long, professional work experience, while earning credits to reduce the time of the normal co-op study plan from 5 years to 4.5 or 4 years. OPP is building partnerships with co-op employers to hire cohorts of students for full-year continuous co-op experiences. While working, students may enroll in online courses during each of the three academic periods for which the student will be registered for co-op. In addition, each company participating in LWW can offer an engineering project to the entire cohort of LWW students. The project will include company mentors as well as a Purdue faculty mentor. Through a combination of industry projects and online courses, students are able to reduce their time to graduation and earn up to 15 credits while working full-time.

OFFICE UPDATES

WELCOME, LUNA LU

Dr. Luna Lu serves in many roles at Purdue University. As the Founding Director of the Center for Intelligent Infrastructure, the Inaugural Director of Joe and Lisa Shetterley Innovation Lab and ACPA Professor of the Lyles School of Civil Engineering, OPP welcomes Luna to the Director role for the office. Her research on intelligent infrastructure and IoT sensors have received numerous scientific awards, including the 2014 National Science Foundation (NSF) CAREER Award, 2019 Purdue Faculty Scholar, 2019 Purdue Named Rising Star Professorship, 2020 Vebleo Scientist Award and 2021 ASCE Gamechanger Recognition. She was recently elected to the Fellow of Royal Society of Arts (FRSA).

Luna has co-founded several start-up companies and translated several technologies from her research lab into engineering applications. We look forward to celebrating many successes under her leadership.



CONGRATULATIONS, JOE TORT

Joe was appointed as an Experiential Education (ExEd) Champion for Purdue due to his expertise in experiential learning and its impact on students. Joe was selected based on his diverse backgrounds, interests and his history in creating and delivering valuable experiential education opportunities to Purdue students. Joe has helped implement the Intercultural Development Inventory into various programs and formed coursework to further students' global competency. He spearheaded the relaunch of the GEARE program post-pandemic shutdown, sending 60 students abroad to 13 different countries and continues to excel as a leader in both global and domestic partnerships.



CONGRATULATIONS, FRANCISCO MONTALVO

Francisco, Assistant Director of Global Projects, was awarded the College of Engineering New Employee Award during the annual "Awards of Excellence" celebration. Francisco was selected for his skill in developing new programs in collaboration with global university partners to provide experiential learning opportunities for students. During the height of the pandemic, Francisco created relationships for students to continue to develop global skills by participating in projects with partners in Ecuador, Germany & Mexico, while working closely with companies like Daimler, Siemens and the Pan-American Health Organization.



WELCOME, PATRICK FRANCIS

Patrick joined OPP in February as the Senior Experiential Learning Programs Manager. Patrick's previous work experience ranges from international staffing coordinator, university recruiter and career advisor to high school students. He has experience with professional development, curriculum planning and partnering with local communities on workforce development initiatives. Patrick will be leading efforts involving OPP's new industry-based program, Learning While Working (LWW), that provides a year-long consecutive co-op option for students and industry partners. He will also work to enhance the Interns for Indiana (IFI) program with a focus on Indiana startups and early stage companies.



WE ARE MOVING

OPP anticipates moving into a new building by spring 2023. The "Engineering and Polytechnic Gateway" project, a major construction project for Purdue's Polytechnic Institute and College of Engineering, creates a new complex that will provide a total of 255,000 gross square feet. This space will be used for instructional laboratories, faculty offices, design studios and collaborative spaces. Consisting of two connected buildings named Dudley Hall and Lambertus Hall, the complex will increase both the quality and quantity of instructional lab space, provide more dedicated space for active learning and lab-centric instructional methods and bring together labs that are currently geographically separated.

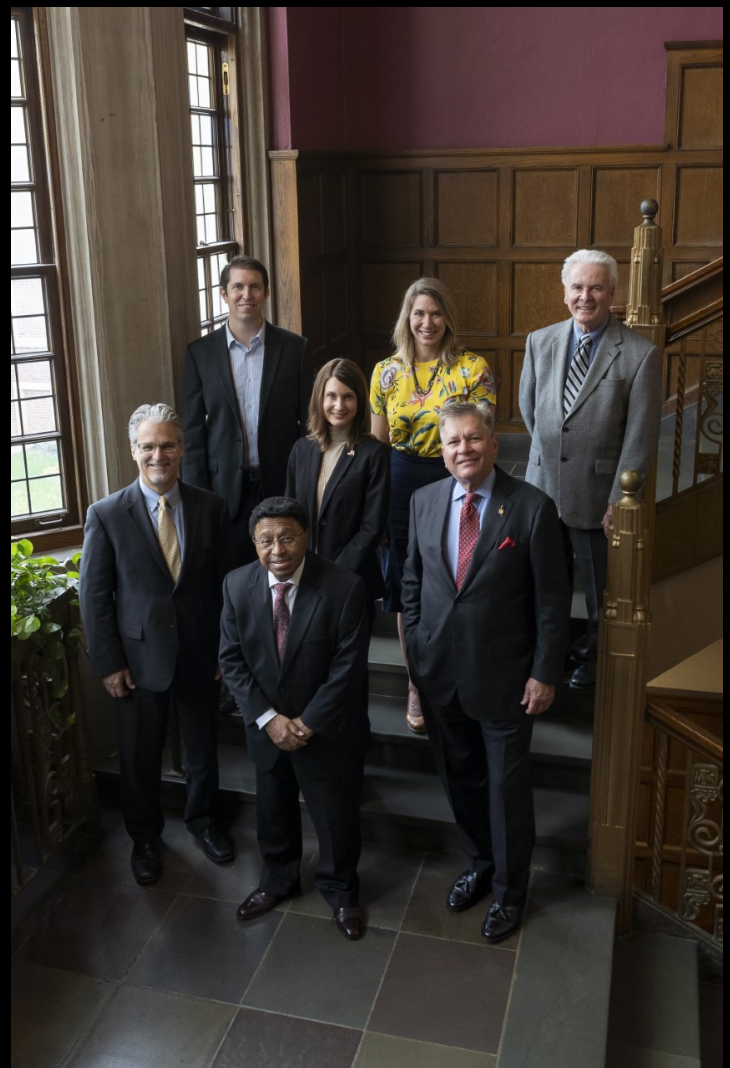


PROFESSIONAL PRACTICE HALL OF FAME 2021

The Professional Practice Hall of Fame recognizes individuals who have had a significant influence on Professional Practice programs, as well as alumni of OPP programs who have demonstrated unparalleled excellence in their field. These individuals represent the very best that Co-op and GEARE have to offer. Hall of Fame members are known for mentoring and serving as a prime example of how the professional experiences facilitated by OPP helped build networks to aid in excellence throughout their professional careers.

The 2021 Hall of Fame event was back in-person for the first time since the onset of the pandemic. Inductees arrived to campus in late fall and the Professional Practice Ambassadors, along with OPP, hosted a Q&A panel with students from various disciplines. The inductees later attended a breakfast with OPP staff and learned about updates to programs while brainstorming new ideas for professional development and industry connection. The group toured and explored campus for a photo shoot prior to arrival at the Recreation & Wellness Center for the annual luncheon celebration.

Approximately 100+ students, faculty, staff, industry partners and alumni were in attendance. A keynote was given by Professor David Bahr and student remarks by former PPA President, Mitch Michaels. All attendees enjoyed a catered lunch followed by the inductees sharing remarks on their nominations.



PHOTOS BY VINCENT WALTER PHOTOGRAPHY



2021 PROFESSIONAL PRACTICE HALL OF FAME INDUCTEES



ALAN KENNEDY (ME '69)

Alan was previously employed as a Design Engineer at GE Appliances and as a Patent Attorney at Xerox, U.S. Army and NASA. He was the first black student to graduate with a Mechanical Engineering Co-op at Purdue University. Alan served as Director of the NASA Patent Infringement Division in Washington, DC and led NASA trademark compliance initiatives including films such as Apollo 13 and Armageddon.



DENNIS "DENNY" WARNER (AAE '73 & ME '76)

Denny served as the University Business Executive on behalf of Rolls-Royce and was awarded Purdue's 2009 Outstanding Aerospace Engineer Award. Denny was also awarded Purdue's 2013 Outstanding Mechanical Engineering Award. He retired while serving as President of Rolls-Royce Controls and Data Services North America.



CARLOS HERNANDEZ (CE '76)

Carlos was awarded the 2016 Civil Engineering Alumni Achievement Award and has served on the Civil Engineering Advisory Council from 2011 - 2018. He worked for the parent company of Burns & McDonnell, Armco Inc., a diversified public company with interests in steel, manufacturing, oil field equipment, financial services and engineering and construction. Carlos currently serves as Chief Legal Officer and Executive Vice President at Fluor Corporation.



DAN STOPPENHAGEN (CE '85)

Dan was the recipient of 2007 Civil Engineering Alumni Achievement Award and has served on Purdue's Civil Engineering Advisory Council from 2001 - 2006. He is a published author in seismic repair of concrete structures and served on the American Concrete Institute's (ACI) national committees. Dan developed and executed a unit at Fluor Corporation to create a \$2 billion business. He currently serves as Executive Vice President at Lane Construction.



DIANA CLUTE (MSE '05)

Diana has served on the Purdue MSE Advisory Committee since 2015. She was Awarded the 2014 Manufacturing Institute's Women in Manufacturing STEP Award and has held many positions within Caterpillar, Inc. with increasing responsibilities, allowing for success in launching and managing new products and millions in cost savings. She currently serves as Engineering Platform Manager for the Large Power Systems Division at Caterpillar, Inc.



ERIC BORN (CHE '06)

Eric is a frequent speaker in the Chemical Engineering Undergraduate Seminar courses and serves as Team Captain for ExxonMobil's Engineering Recruiting Teams. He is the key contact for the relationship between Purdue and ExxonMobil. He currently serves as a Hydrocarbon Fluids Sales Representative, focused on the consumer product, pharmaceuticals and co-packaging industries.



JESSICA VAN DALEN (MSE '07)

Jessica was the recipient of the 2017 Pro Bono Publico Award from the Indiana Bar Association. She was named 2018 Outstanding Materials Engineer by the Purdue School of Materials Engineering. She has served as an adjunct faculty member at Indiana University Maurer School of Law Intellectual Property Clinic and currently serves as a Partner at Faegre Drinker Biddle & Reath LLP Law Firm.

OPP IMPACT

771 CO-OP
STUDENTS

335 GEARE
STUDENTS

251 UNIQUE
EMPLOYER
PARTNERS

13 INTERNS FOR
INDIANA
STUDENTS

175 CO-OP
CERTIFICATES
AWARDED

110 MASTERS
CO-OP
STUDENTS

1675 PARTICIPANTS
IN OPP
PROGRAMS

185 MILESTONES
CERTIFICATES
AWARDED

1500+

PROSPECTIVE & ADMITTED STUDENTS AT PURDUE INFO FAIRS IN COLLABORATION WITH THE OFFICE OF FUTURE ENGINEERS & PURDUE ADMISSIONS

8500+

STUDENTS ENGAGED THROUGH OPP PROGRAMS & EVENTS

500+


STUDENTS AT CO-OP & GEARE CALLOUTS

100+

STUDENTS AT RESUME REVIEW EVENT IN COLLABORATION WITH CCO

67% 

OF OPP STUDENTS ARE MALE

33% 

OF OPP STUDENTS ARE FEMALE

600+

STUDENTS AT PROFESSIONAL PRACTICE DAYS CAREER FAIR & INTERVIEW DAYS

LEARNING WHILE WORKING

The Learning While Working (LWW) co-op model was designed to provide one full year of work experience while reducing time to graduation up to 4.5 or 4 years by allowing students to earn credit while gaining industry experience.

STUDENT BENEFITS:

- Extensive experience allows for more in-depth learning at work
- Continuous academic engagement with faculty and peers
- Simplified housing and logistics
- Continuous full-time student status for immigration and financial aid purposes
- Opportunities to tailor electives based on work experience

COMPANY BENEFITS:

- Higher-level training opportunities and broader responsibility for co-ops
- Longer term employment preference by tech sector and industry partners
- Compatible with flexible and hybrid work options
- Early recruitment access to top engineering students
- High level of engagement from students leads to stronger company loyalty

Students can earn up to 15 credits during their one-year LWW co-op experience by engaging in online courses or industry projects. Projects may be co-mentored by company engineers and Purdue faculty.

INDUSTRY PROJECTS

LWW projects help companies and students address problems relevant to your business unit related to improving processes, design and evaluate processes of quality or manufacturing, employ data analytic and simulation tools, rapid prototyping, design iterative processes, etc.

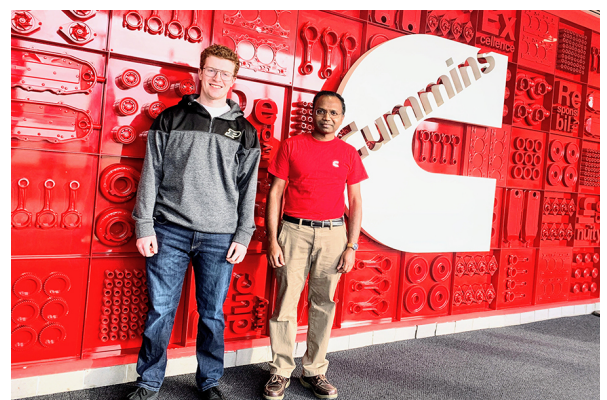
- 3-5 students tackle your industry need in a total 150 to 300 project-hours per student
- Periodic mentoring meetings with industry and faculty mentors in 16-week semesters, up to 12 months
- Mid-semester and final report and deliverables including a final presentation, prototype or model (as required)

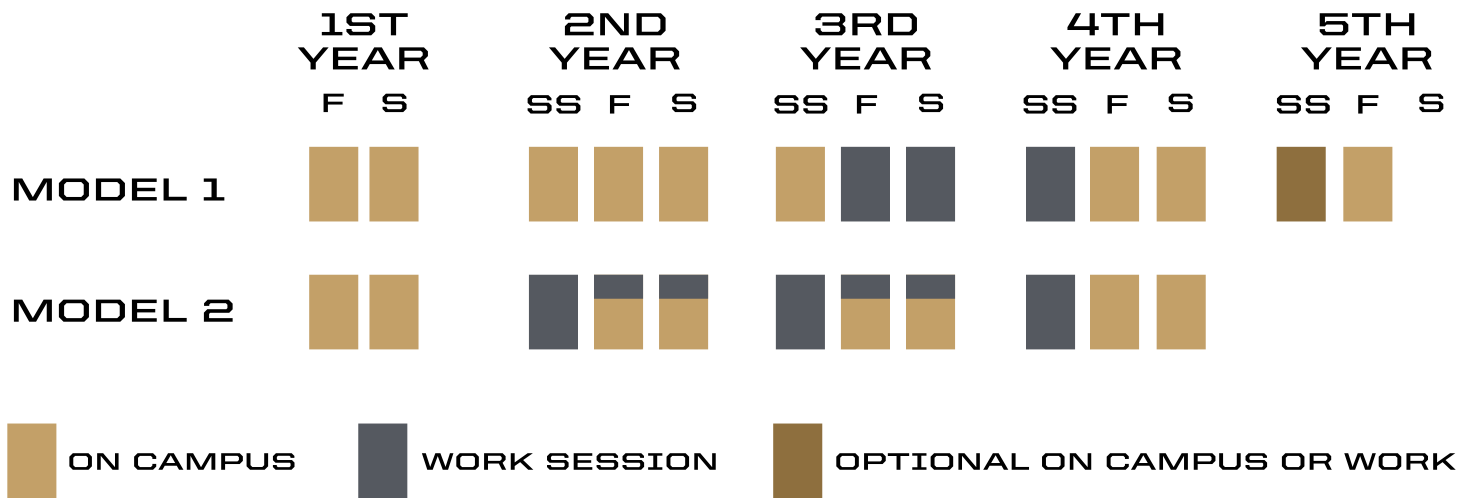
PROJECTS SHOULD ENCOURAGE STUDENTS TO:

- Work in multidisciplinary teams
- Develop creative solutions to address industry challenges
- Lead development in their field with a positive impact
- Work independently

COMPANIES SHOULD COMMIT TO:

- Provide the project with a subject matter expert who is able to commit to mentoring students and communicating with mentoring faculty
- 1-2 hours/week contact time; more time in beginning as scope is refined. This is very important to the success of the project, feedback and input on presentations and final deliverables





The following testimonies come from our pilot cohort of LWW students who had the opportunity to experience this co-op model at Cummins.

EVAN HILL | ECE '24 | WARREN, IN

"I have had a very positive experience at Cummins so far, both with the people I work with and what I am working on. Getting help from the more seasoned employees has helped my communication skills and allowed me to learn quite a bit about internal combustion engines. Working with simulations and modeling for the purpose of control is something I have not done before, which has improved my problem solving. So far, I have not worked with anyone in a team setting or had any leadership role. I have really enjoyed working from home, but I now have my Cummins badge and I can go and work in one of the office spaces if I would like to."

JIYOON IM | ME '24 | BUSAN, SOUTH KOREA

"Just finishing first semester of Junior year, I still felt I was inexperienced to be doing a professional industry work. However, looking back, I am glad I did not back down. This opportunity has brought me learning and personal development opportunities that I can bring back to school and upcoming career journey. Here at Cummins, teamwork can be observed in a great scale. My team comprises of members from India, China, Sweden and the United States. It is incredible to see everyone working together despite the language, time and space. Most of the meetings start off with a mini presentation called "Tech Topic" where a member presents about their current work/projects. Through this opportunity, the presenter is able to get feedback from the teammates. Everyone comes together with critical thinking and problem-solving skills, bouncing ideas off each other to tackle the problem to make the product more efficient, sustainable and cost effective."

MAXWELL BOLT | ME '24 | CLARKS HILL, IN

"Working at Cummins has been a rich experience packed with new challenges every day. My first week I was stunned by how friendly everyone was around the tech center. Personal growth does not happen alone at Cummins. Everyone I met has been willing to slow down to show me their work and answer questions, so I can better understand how my cog fits into the machine. The range of learning opportunities has been illuminating. I spoke with an engineer about his cutting-edge machine learning algorithm and even helped a technician install sensors that feed that algorithm. These technologies will move Cummins and the world forward into a cleaner, more environmentally friendly future. A future only made possible when each person comes together and does their part to accomplish our common goals. I feel fortunate to be a part of a company and work environment that is leaning forward in green technology and investing in my growth as an engineer."

ENGR 103 COURSES

OPP offers a variety of courses to help students prepare for work experiences. Our 100-level courses provide students the foundation to learn about different industries, gain perspective on professional development tools, connect with industry partners, network with peers and more. These courses are a great foundation to start with on the path to work-integrated learning experiences.

ENGR 10301: INTRODUCTION TO PROFESSIONAL PRACTICE

This course is available to First-Year Engineering students and aims to prepare students for successful co-op or internship experiences. In the course, students will develop a professional resume, cover letter, elevator pitch, interview skills and a LinkedIn profile. They will have the opportunity to connect with engineering student mentors who have already gained professional experience. Additionally, students will hear from several industry speakers on topics such as organizational culture, building a professional network, creating effective working relationships, working effectively across cultures and more.

ENGR 10301: SILICON VALLEY & THE TECH INDUSTRY (NEW)

This course will serve to enhance professional development and prepare students for careers in the tech industry and Silicon Valley. This is a course with embedded spring break travel to network with employers and Purdue alumni in Silicon Valley. Students complete assignments to enhance their professional skills and have the benefit of hearing from several industry speakers to develop an understanding of how to successfully compete for opportunities in the tech industry. This course is geared toward first and second year students.

ENGR 10301: PHARMA CAREERS & DRUG DISCOVERY (NEW)

This course serves to enhance career development in the pharmaceutical industry. Speakers will present on different topics to inform and prepare students for internships, co-op positions and jobs in the pharmaceutical industry. This course is geared toward FYE and sophomore engineering students, in addition to BSPS students, as well as other majors from the College of Science.

ENGR 10301: DEFENSE & SECURITY

This one-credit seminar course will feature presentations by Purdue faculty and invited world-class researchers who work for the Departments of Energy, Defense and Homeland Security. These presentations will introduce topics related to the complex intersection of engineering, policy, and government research, and will demonstrate the many exciting opportunities Boilermakers have to work on these topics.

JAMES MOCK: RISING CHEMICAL ENGINEERING STUDENT EMBODIES FYE STUDENT EXPERIENCE THROUGH OPP SEMINAR COURSES

Looking back on his first year on campus, first-year engineering student James Mock had a lot to share about his experiences with the seminar courses offered through the Office of Professional Practice.

Last fall, James chose to enroll in ENGR 103: Intro to Professional Practice to explore options in the College of Engineering with the intention of upgrading his resume from high school, learning how to prepare for a job fair and building a professional network.

With the intent to declare his major in Chemical Engineering, James was able to explore different industries and really understand how a Chemical Engineer could fit it into a variety of roles.

"I really feel like with my major and being at Purdue, I'm at the cornerstone of everything in the world right now," Mock said. Part of that feeling originated through his spring seminar courses, ENGR 103: Pharma Careers & Drug Development and ENGR 103: Silicon Valley & the Tech Industry. As a student in the Silicon Valley course, he was able to travel with a group of 20 peers to San Francisco to visit multiple companies.

"Our trip to California was a great way to apply the practical learning from the professional practice course I took in the fall and I was able to build my professional network immediately. This was definitely a unique experience as a college freshman," Mock said about the opportunity to interact with industry leaders.

Mock plans to continue his association with OPP as an undergraduate teaching assistant for the office. His experience is an exact model of what the office intends to offer through the seminar courses with industry exposure and knowledge about professional development as students progress at Purdue.

"No matter what your major is, every Purdue student should enroll in some sort of seminar class during their time on campus. It promotes a different style of learning experience."

James is spending his summer in Northern Indiana as a Branch Manager for College Works Painting. When he returns to campus, he plans to connect with more students about their co-op experience to understand how he can better align his career goals and explore new opportunities.



GET IN GEARE

335 GEARE STUDENTS

43 GLOBAL ENGINEERING MINORS AWARDED

43 STUDENTS GRADUATING

STUDENTS ABROAD IN **13** COUNTRIES

Colombia, Denmark, Ecuador, France, Germany, Hong Kong, Ireland, Italy, Netherlands, Singapore, Spain, Switzerland & UK



11 MAJORS REPRESENTED
AAE, BE, CE, CHE, CMPE, EE, EEE, IDE, IE, ME, MSE

60 STUDENTS ABROAD
POST-PANDEMIC

NO GEARE TRAVEL
IN 2021

74 STUDENTS ABROAD
IN 2020

GEARE PARTNERS WITH MULTIPLE UNIVERSITIES IN MEXICO

The Office of Professional Practice in collaboration with Global Engineering Education Programs hosted students from Universidad Aeronáutica en Querétaro (UNAQ) for an immersive week on campus where they were able to experience aerospace industry, education and research in Indiana. Activities included visiting Purdue University Airport flight training facilities and the Hangar of the Future Laboratory, where they had the opportunity to interact with Purdue engineering and polytechnic students and get first-hand exposure to state of the art AR and VR training in aeronautics. In addition, they interacted with GEARE ambassadors and mechanical engineering students at ME's Wind Tunnel Labs, and enjoyed a unique visit to Timberhouse Aero, a local community of pilots and aviation enthusiasts. During this visit, the students learned about experimental aviation from one of the founders and Purdue Engineering Alum, Dave Gevers.



Purdue University College of Engineering and Purdue Polytechnic students were able to travel to UNAQ and visit to learn about the aerospace industry in Mexico. Students had the chance to learn about airport management at Aeropuerto Internacional de Querétaro, aircraft maintenance operations at TechOps Mexico, hands-on composite materials and more.

We would like to thank the faculty and staff from Purdue Polytechnic and College of Engineering for helping coordinate and hosting this visit to our campus, and to extend a sincere thank you to Professor Steven T. Wereley from mechanical engineering, for leading the study abroad experience and co-hosting our visiting students at Purdue.

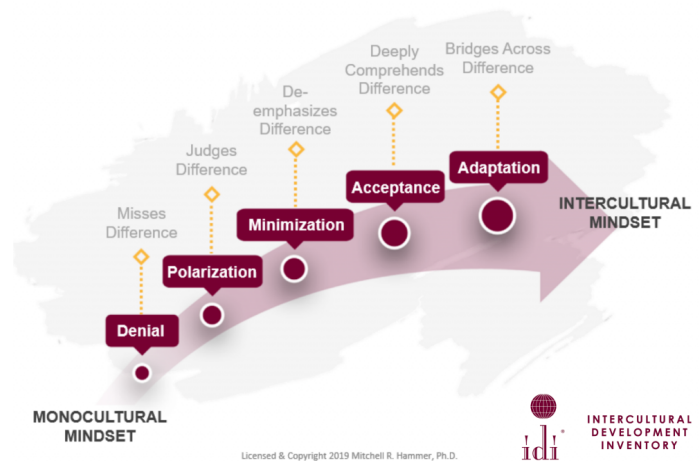


Rachael Snow, a rising senior in Industrial Engineering, studied at Tec de Monterrey Campus Querétaro in Santiago de Querétaro, Mexico during the spring semester. She lived with a host family in the city and had learned "a good deal of Spanish" within the first two days of living with them. When asked to share one of her best experiences, Rachael said, "I have loved seeing the city center- the aqueducts, museums, plazas, churches and art!" She also did research abroad this summer and participated in part-time work during the semester.

The most significant piece of advice she offers students is to use your network. "Ask Joe and Francisco about opportunities and ask professors if they know anyone abroad that might be interested in you!"

INTERCULTURAL DEVELOPMENT INVENTORY

The Intercultural Development Inventory® (IDI®) assesses intercultural competence—the capability to shift cultural perspective and appropriately adapt behavior to cultural differences and commonalities. Purdue's GEARE program utilizes the IDI in curriculum both pre and post departure. Time and time again, Purdue students show significant growth in their IDI scores. While 16% of the general population can increase to one of the highest levels of intercultural competency, 46% of GEARE students achieve this level upon completion of the program.



IDI Cohort Comparison 2021 (no travel), 2020 (interrupted travel), 2019 (full travel)	2021	2020	2019
Points of Growth in Developmental Orientation	18.35	17.32	13.88
Percent of students exhibiting growth	61%	72%	61%
Percent of students finishing with higher-level developmental orientations	46%	56%	34%

EVENTS & ENGAGEMENT

PROFESSIONAL PRACTICE DAYS CAREER FAIR & INTERVIEW DAYS

The 2022 Career Fair was held in-person this year after a hiatus due to the pandemic. The fair was hosted in February at the Recreation & Wellness center with a group of 60+ employers recruiting from all disciplines. Utilizing the Career Fair Plus platform, OPP was able to host a virtual fair in tandem so a wide network of employers could join and recruit Purdue's best and brightest. Across all platforms and events, OPP saw 600+ students participate and work to earn co-op positions across the country. Prior to the career fair, OPP hosted an employer meeting that was hybrid with 75+ industry partners in attendance.



SCOTT CAMPBELL (GEARE ALUM) & THE IMPORTANCE OF INTERCULTURAL COMPETENCY

In collaboration with the Rising Professionals student organization, GEARE welcomed back Scott Campbell, a program alum, for an evening event held at Ross-Ade Stadium. Scott is a Product Design Lead for Apple and leads a small team focused on the mechanical design of professional grade computers from concept review to mass production, working cross functionally with other groups of ranging disciplines to deliver a top quality, reliably robust and intentionally crafted product.

Scott received his bachelor's degree in Mechanical Engineering with a Global Engineering Studies Minor, Electrical Engineering Minor and Entrepreneurship & Innovation Certificate. He says nothing at Purdue was more influential than his participation in GEARE and his experience with the Einfeldung Engineer Co-op via Mercedes-Benz U.S.A. International, Inc. and Anlauffabrik Engineering Co-op via Daimler AG in Sindelfingen, Germany. Scott led a great discussion with our current students on the importance of intercultural competence. He said, "growth happens outside of your comfort zone" and to "always be willing to have a conversation." He still connects with the friends and colleagues he made internationally and attributes much of his success to his global experiences afforded by his time at Purdue.



SILICON VALLEY STUDY AWAY SPRING BREAK TRIP

In response to the challenges associated with international travel, Purdue International Programs expanded the traditional study abroad programs to include a domestic “study away” model. During spring break, 22 students participated in the program and spent eight days in the greater Bay Area visiting companies in Silicon Valley.

Students visited nine companies including Joby Aviation, Zoox and Lucid Motors, while interacting with a number of Purdue alumni, engineers, managers and c-suite level executives. The trip was led by Joe Tort, Associate Director of OPP Programs, Francisco Montalvo, Assistant Director of Global Projects and Steve Sposato, Executive Director of the John Martinson Entrepreneur Center - West, in Palo Alto, California.

Joe shared that the inaugural study away program for the ENGR 10301 Silicon Valley and the Tech Industry course was a phenomenal success. Students had the opportunity to visit startups and tech giants spanning diverse industry sectors. During each visit, students were greeted by Purdue alum and had opportunities to engage with company CEO’s, CTO’s and VP’s. This provided space for students to build their networks, industry knowledge and confidence. “I know that many students will go back to Silicon Valley in the near future as interns, full-time employees, or entrepreneurs,” said Joe.



GULFSTREAM COMPANY INFO SESSION: G500 AIRCRAFT ON CAMPUS

In February, prior to our career fair, OPP had the opportunity to work with our partners at Gulfstream Aerospace for a one-of-a-kind company info session. In collaboration with the Aviation Technology ambassadors, students were invited to the Purdue Airport, where they were able to tour a G500 aircraft vehicle and meet with company recruiters. 100+ students came through the event to learn about potential professional opportunities.

TESLA COMPANY INFO SESSION: CHRIS LISTER KEYNOTE, STUDENT NETWORKING EVENT & VEHICLE VIEWING

Tesla is known for accelerating the world’s transition to sustainable energy. Chris Lister, Purdue Industrial Engineering Alum and Vice President of Operations at Tesla, came to campus along with some of the company’s collegiate recruiting team to connect with 400+ Purdue students. A networking event was held in Stewart Center where various students could meet with the Tesla team and learn about opportunities, the workplace and how to elevate themselves to apply for a competitive position. Tesla continues to hire many Purdue students each year. Following the networking event, students attended a vehicle viewing on Memorial Mall and then proceeded to Loeb Playhouse for a presentation on Tesla’s company culture and tips for success in career development.



BECOME A CORPORATE SPONSOR

Purdue University has a long and distinguished history of partnering with industrial and governmental organizations to provide undergraduate students with practical training to enhance their educational experiences. One aspect of these partnerships is Corporate Sponsorship. The Office of Professional Practice is grateful for our corporate sponsors who provide the best experience to all students participating. We are very appreciative for the corporate gifts received for the 2021-2022 academic year and would like to share with you how these gifts have been utilized.

IMPACT OF SPONSORSHIP PROGRAM

ACADEMIC SCHOLARSHIPS

The most important impact of our sponsorship program is the ability to award students with academic scholarships. Support for scholarships assists with students on campus and during industry experiences.

STUDENT EMPLOYMENT

With your support, our office is able to employ experienced co-op & GEARE students to help us promote the value of our programs across the university. These students serve as teaching assistants in professional skills courses and develop leadership skills as mentors for a variety of student populations.

AWARDS AND RECOGNITION

These funds support special events that recognize both students and alumni for professional achievements. Events like our Co-op Hall of Fame support efforts by showcasing the OPP impact and ability to launch student careers toward becoming future industry leaders.

TECHNICAL SKILLS

Sponsorship support allows for our Milestones program to be completely free to students. These technical development workshops advance student skills in programming with Arduino, Electronics & App Development, CAD/3D Printing & more. (Diamond level sponsorship allows for customization to fit employer's needs.)

PROFESSIONAL DEVELOPMENT

OPP directly engaged with 8,500+ students through a variety of professional development or networking events. Our student organizations, Professional Practice Ambassadors & GEARE Ambassadors, advocate for various development opportunities.

JOB PERFORMANCE ENHANCEMENT

As a sponsor, our staff are able to visit students on site to measure progress and hear feedback on their work experiences. Site visits allow for our team to engage with students and also strengthen our partnership by understanding your impact as an employer.



SPONSORSHIP AT ALL LEVELS WILL RECEIVE THE FOLLOWING BENEFITS:

- Free registration at all OPP Career Fairs, including Co-op Days (In-person & Virtual)
- Engagement opportunities such as networking events, resume workshops, etc.
- Logo placement with link to your website on OPP web and database
- Invitation to engage with students in First Year Engineering 103 courses

BLACK (\$2,500)

- (1) \$500 employer-named scholarship to a student in Co-op or GEARE

GOLD (\$5,000)

- (2) \$500 employer-named scholarship to a student in Co-op or GEARE
- Host in-person or virtual company information sessions at no charge
- Access to campus interview space throughout the year at no charge

PLATINUM (\$10,000)

- (4) \$500 employer-named scholarship to a student in Co-op or GEARE
- (1) employer named undergraduate TA providing mentorship to students and engaged with specific campus marketing activities for your company
- (1) Company day: a full day campus branding event catered to the employer

DIAMOND (\$15,000)

- (6) \$500 employer-named scholarship to a student in Co-op or GEARE
- (1) employer named undergraduate TA providing mentorship to students and engaged with specific campus marketing activities for your company
- (1) Company day: a full day campus branding event catered to the employer
- Teach a company branded technical Milestones course (technical skills seminar)
- Host a student group visit to your facility coordinated by the OPP office staff



OUR CORPORATE SPONSORS

DAIMLER



ExxonMobil



EASTMAN



PLATINUM LEVEL

DAIMLER is one of the biggest producers of premium cars and the world's biggest manufacturer of commercial vehicles with a global reach. The company operates its business through five segments: Mercedes-Benz Cars, Daimler Trucks, Mercedes-Benz Vans, Daimler Buses, and Daimler Financial Services.

GOLD LEVEL

BOEING is a world's largest global aerospace company that develops, manufactures and services commercial airplanes, defense products and space systems for customers in more than 150 countries. They are a top U.S. exporter that leverages the talents of a global supplier base to advance economic opportunity, sustainability and community impact.

ZF GROUP is a global technology company that supplies systems for passenger cars, commercial vehicles and industrial technology. With its broad portfolio, the company offers integrated solutions for established vehicle manufacturers, mobility providers and start-up companies in the fields of transportation and mobility.

BLACK LEVEL

CUMMINS is a global power technology leader that specializes in diesel and alternative fuel engines and generators, and related components and technology. They are a corporation of complementary business segments that design, manufacture, distribute and service a broad portfolio of power solutions.

ED MINIAT produces custom-formulated, sous video-cooked beef, pork, chicken and turkey for global food brands and national restaurant chains. Award-winning chefs, meat scientists, and experienced sales team will partner with you to find the ideal solution for your needs, components and technology.

HOWMET AEROSPACE is a global leader in engineered metal products, making quieter, more fuel-efficient engines for airplanes and gas turbines. They provide a range of high performance multi-materials, highly engineered products and vertically integrated machined solutions for aero engines and airframe structures.

GENERAL MOTORS provides a complete range of vehicles that meets the needs and expectations of drivers on a truly global scale. GM is the only company with a fully integrated solution to produce self-driving vehicles at scale and are committed to an all-electric future.

EXXONMOBIL operates all over the world and is best known by their familiar brand names: Exxon, Esso, ExxonMobil and Mobil. They make the products that drive modern transportation, power cities, lubricate industry and provide petrochemical building blocks that lead to thousands of consumer goods.

AIR PRODUCTS serves customers across a wide range of industries, from food and beverage to medical, energy and transportation. They have about 16,000 employees and operations in 50 countries and supply a unique portfolio of atmospheric & process gases, equipment and service.

GE APPLIANCES designs and builds the world's best appliances. From design to production to service, their goal is to help people improve their lives at home.

MERITOR is a leading global supplier of drivetrain, mobility, braking, aftermarket and electric powertrain solutions for commercial vehicle and industrial markets. They have manufacturing facilities, engineering centers, joint ventures, distribution centers and global offices in 19 countries.

EASTMAN CHEMICAL is a global specialty materials company that produces a broad range of products found in items people use every day. They work with customers to deliver innovative products and solutions while maintaining a commitment to safety and sustainability.

SCHOLARSHIP RECIPIENTS

\$113,200 AWARDED TO SUPPORT STUDENTS
IN WORK INTEGRATED LEARNING

LEONARD E. WOOD SCHOLARSHIP

Established in 2007, this scholarship honors the memory of the late Leonard E. Wood. Wood received his PhD from Purdue University in 1956 and subsequently joined the faculty as a Professor of Civil Engineering. He then became the School of Civil Engineering's Faculty Coordinator for Purdue's Cooperative Education Program in 1989, a role he continued in until his untimely death in 2004. The scholarship fund exists thanks to a generous donation from Professor Wood's widow, Margaret, who sought to honor his dedication to the Co-op program while enabling the achievement of today's students. OPP has awarded 35 Wood Scholarships since 2007 including this year's recipients. The Leonard E. Wood Scholarship for Cooperative Education is awarded to deserving Co-op students based on academic merit and life-changing experiences brought about by the Co-op program. Cooperative education never had a greater friend, supporter or promoter, and no one better exemplified the Co-op value of practical education as a mentor, counselor and teacher.



Ryan Murphy (AAE)

Mitch Michaels (ME)

WILLIAM C. & LINDA E. NELSON SCHOLARSHIP

William and Linda Nelson have been long-standing generous supporters of Purdue's Co-op Program. William (Bill) is a graduate from Purdue University in 1974 earning a BS, and a year later, MS in Chemical Engineering. Having over 40 years of industry experience, Bill has received many awards to honor his accomplishments. Most recently, he has been inducted into the 2013 Cooperative Education Hall of Fame as well as been honored as a 2017 Outstanding Chemical Engineer by Purdue University. An endowment fund was established by Bill and Linda for the creation of annual scholarships for co-op students. Additionally, incentive grants for instructors offering on-campus and/or online courses for Co-op students have been generated.



Amanda George (ChE)

Maddie Barondaue (ChE)

Landon Abboud (AAE)

Marina Lennartz (ME)

Mary Vaughan (EE)

Nicholas Block (ME)

OPP IMPACT SCHOLARSHIP

Office of Professional Practice alumni in both Co-op & GEARE programs continue to be generous supporters for the student experience. The OPP Impact scholarship is supported by various alumni contributions and is awarded yearly. This award is given to OPP students who demonstrate excellence and involvement in work-integrated learning.

Srikeerthan Annepu (ME)

Vinod Rangaprasad (ME)



EMPLOYER SCHOLARSHIP

One of the best ways to help students remember and recognize your company is to assist them with their education. The Office of Professional Practice will be awarding students with \$1,000 scholarships through employer gifts.

Abi Williams (OHSE)

Alexander Marler (MET)

Alyssa Williams (ME)

Aman Chokshi (AAE)

Brandon Hay (AAE)

Daniel Furry (IE)

Davis Ashbrook (EE)

Derek Freeman (CS)

Divya Sunderam (BME)

Elyssia Wellington (BME)

Emme Longman (BE)

Hana Wong (EE)

Isabella Malik (IE)

James Doyle (CompE)

Jessika Wahlbin (EEE)

Katie Lindert (ME)

Kavin Malarkannan (CE)

Madison Bird (ChE)

Matthew Kane (EE)

Nathan Wang (ME)

Nicole Nagel (BME)

Owen Jones (BME)

Radhika Kulkarni (BME)

Raina Barger (MSE)

Rohil Senapati (ME)

Sarah Palmer (AAE)

Sarah Teehan (CE)

Sriram Ganesh (ME)

Tristan Bigelow (AAE)

CO-OP ALUMNI SPOTLIGHT

JOE WATKINS

Joe Watkins, an Indiana native, has been interested in computers and technology since his early years. In high school, he started his own computer repair business and accumulated over 600+ clients. When Joe started his college career at Purdue in 2012, he had three goals: meet people, be challenged and avoid getting into debt. Initially, he wanted to be a biomedical engineer. After a few months on campus, he changed course and started taking Electrical & Computer Engineering classes. Joe was looking for an internship, like everyone else in engineering. He learned about the co-op program during one of his classes, so he applied and received an offer to work for S&C Electric Company in Chicago.



He loved the co-op experience because not only did it teach him about technical skills, he was able to actually apply them. Joe says he had multiple incredible mentors that were very influential. In his free time, he loved to explore the city, hang out with other co-ops and interns, and try new things. Joe shared that the highlight of his co-op experience was working with talented engineers. He explains that “when you’re a freshman, what other chance do you get to actually work with real engineers? Students in engineering don’t always know what an engineer does.” Not only did Joe get the real experience, but he was able to work and bounce ideas with actual engineers while working on products with real users. He went on to do another work session as an IT engineer, where he was able to gain experience in everything from 3D modeling to IT architecture, etc. Once again, he had a great mentor and manager, and through this experience, he was able to learn how to use new engineering tools. His path led him to travel to California with the company to do two work sessions and was able to run an intern team in embedded systems. Throughout his entire co-op experience, Joe learned that engineers who can communicate not only with other engineers but other backgrounds are extremely valuable, and the people you surround yourself with matter more than anything else. He advises others to take challenging courses so they can learn the material and grow/maintain relationships with other classmates. Joe shared that although he did not complete his degree program, he was able to gain valuable experiences that led him to his current career.

In 2016, a group of Purdue students developed Socio, originally a social media application that revolutionized the way people connect by introducing the “digital handshake.” and now has grown to one of the best event management platforms that exists. Joe was one of them. The very first version of Socio was built in less than 48 hours at a Purdue hackathon at the Anvil. Joe was responsible for programming the web interface, known as the Socio Platform, and for programming the Android application. The enormous success of the company named the three co-founders: Yarkin Sakucoglu, Joe Watkins and Alihan Ozbayrak to the Forbes 30 under 30 list in 2020 under the Enterprise Technology category. In 2021, Socio was acquired by Cisco and was renamed Webex Events. Joe is currently serving as Chief Customer Officer where he oversees all customer operations.

GEARE ALUMNI SPOTLIGHT

PAVITHRA (PAVI) RAVI



Pavithra (Pavi) Ravi graduated from Purdue with her bachelor's degree in Aeronautical and Astronautical Engineering in 2019. She then went on to receive her master's degree in the same field in 2021. Pavi grew up in Singapore and came to Purdue because she wanted a change after 18 years. She had always been a space geek and was drawn to both astrophysics and aerospace engineering. She settled on the latter because of its broader career prospects. She explains that she wasn't going to study the universe, so she figured she may as well work on things that aid in doing that. She then knew that coming to the cradle of astronauts was a no-brainer.

As a student in the GEARE program, she studied abroad at the University of Bristol in the Spring of 2018. She had an internship at HyperSciences, Inc. in Washington in the summer of 2016 and an international research experience at the Institute of Space Systems at TU Braunschweig in the summer of 2017. Pavi knew she wanted to study abroad coming into college, and she says that "GEARE just takes that experience to the next level". She enjoyed how holistic the program was and how the intercultural competence seminars, internships and global design team projects, paired with studying abroad, provided the depth of experience she wanted.

Pavi says that she learned three main things throughout her time in the GEARE program: how to connect with a wide variety of people, be flexible, and see things from different cultural perspectives. She emphasized, "...When you're abroad or traveling, things will go wrong; you'll miss your connecting train, have to spend a night in an airport and if you plan to stay, figure out complex bureaucratic procedures in a foreign language in an unfamiliar country." Pavi got comfortable being uncomfortable. Before her GEARE experience, she described herself as being "very much a minimizer." She came to realize that our differences are what make each of us unique and they ought to be celebrated, not erased.

Pavi is currently pursuing a PhD in Aerospace Engineering through a Munich Aerospace scholarship. She works alongside the Space Situational Awareness and Flight Dynamics teams at DLR Oberpfaffenhofen, a German Aerospace Center. She describes DLR as very diverse, and she frequently interacts with people from different countries.

The cross-cultural communication skills she picked up through the GEARE seminars was invaluable to Pavi's experience. Thanks to the eight months she spent in Europe through the GEARE program, her move to another country for her PhD was much less stressful and she was easily able to adapt.

OPP ADMINISTRATION

Luna Lu, Director, Office of Professional Practice

Joe Tort, Associate Director, Office of Professional Practice

Francisco Montalvo, Assistant Director of Global Projects

Jenny Strickland, Senior Co-op Education Programs Manager

Patrick Francis, Senior Experiential Learning Programs Manager

Barb Albrecht, Employer Information Specialist

Tina Alsup, Student Information Specialist

Julie Peretin, Program Coordinator



Potter Hall, Room 114 | 500 Central Dr. | West Lafayette, IN 47907



PURDUE
UNIVERSITY®

Office of Professional Practice



opp.purdue.edu | propractice@purdue.edu | [@pupropractice](https://www.linkedin.com/company/pupropractice)