

RPI ENGINEERING AMBASSADORS

Alumni Newsletter

Fall 2018 Issue

A Letter from our Executive Board

In
This
Issue ...

Hello all,

My name is Leslie Chase and I am the new Operations Coordinator this year. I am in my last year at Rensselaer, studying Electrical, Computer & Systems Engineering. I am excited to be part of E-Board, continuing to grow our organization.

This year, we had the privilege of hosting the Engineering Ambassadors Network conference. We hosted 6 schools totaling 118 junior ambassadors trained to be senior ambassadors. We also were able to host the alumni banquet, which enabled us to see 12 of our graduates! Thank you all for making this weekend so special.

This semester our outreach continues to grow. We have reached about 37,000 students through 52 schools. Besides regular day school visits, we have also reached out to students through a Math and Robotics Club, the new Rise High program in Schenectady, the Boys and Girls Club, and Troy Prep Charter School. In addition, we received 2 grants this semester totaling \$16,000.

Our Recruitment Coordinator, Louis Caponi, did some statistical analysis on the EA members compared with the students in the School of Engineering. Our organization is made up of an equal percentage of aerospace, biomedical, civil, environmental, materials science, mechanical, and nuclear engineering majors when compared with the major percentages from the School of Engineering. Based on the data, we have a very strong representation of chemical engineers, and would like to focus our efforts on recruiting more electrical and industrial & management engineers. RPI's School of Engineering has a 70/30 split between males and females, but EA has a more equal representation, changing the split to 57/43. We are proud to represent RPI engineers.

Happy Holidays!

Member Spotlight

Check out what Senior Ambassadors Fiona Flynn, Amy Reynolds, and Luke Cherniack have been doing in EA and elsewhere!

Engineering Ambassadors Network Conference

We hosted this year's national conference here at RPI!

Connecting with Alumni

We have begun a new relationship with BAE Systems thanks to Tyler Brown '17.

2018 • 2019 Executive Board



Jenn Vincent
President



Ian Steenstra
Outreach



Louis Caponi
Recruitment



Leslie Chase
Operations



Carly Nadler
School Visit



Parth Bhide
Finance

Member Spotlight

Each semester we like to feature a few ambassadors who have been going above and beyond both for our organization and in their own career paths.

Major: Civil Engineering

Hometown: Pearland, TX

Presentations: Optimizing Traffic, Humanitarian Logistics, Water Filtration, Color Mixing, On-Demand Volunteers (in progress)

2018 Summer Internship: I worked for the City of Albany Division of Engineering during one of their annual city-wide repaving projects. I worked across multiple sites overseeing construction and managing pavement quantities.

Research at RPI: I'm partnered with Professor Pazour in the Industrial Management Engineering department to create presentations that bring IME topics like optimization and resource allocation to our EA schools. Currently, we're developing a presentation to explain the tools and models that industrial engineers use to assign resources to tasks within different systems.

Favorite part of EA: Definitely helping students figure out a hands-on activity they might have initially been daunted by. Seeing them get excited about their ability to problem solve and "engineer" something is one of the most rewarding experiences I've had through EA.

FIONA FLYNN



AMY REYNOLDS



Major: Materials Science Engineering

Hometown: Franklin, MA

Presentations: Corrosion in Concrete, Design of a Safe Coaster, Nanotechnology

2018 Summer Internship: I was an engineering intern at a small company called Diversified Technologies in Boston. I worked on US defense contracts, focusing on high power electrical-mechanical systems for inductors, DC circuit breakers, and transformers.

Favorite part of EA: I love organizing the Troy Prep Charter School Program! It's so fun to visit their STEM club every 2 weeks and see the kids get excited about all the different engineering topics at such a young age. I always have fun doing hands on activities with them and teaching them about concepts related to my major.

Major: Chemical Engineering

Hometown: Shrewsbury, MA

Presentations: Chemical Engineering Processes, Rise High Energy, Reaction Action, Oil Spill

Research at RPI: Polymer synthesis for anion exchange membrane fuel cells. The goal of the research is to create and improve polymer membranes that can be potentially used for a commercially available fuel cell by optimizing chemical and mechanical properties.

Favorite part of EA: I love designing new presentations and seeing the pay off when presenting in front of students that may not have known about this topic before. After spending hours trying to get that one animation to work, cutting tons of pvc, and water sealing all of the pieces together for a hands on activity, it's great to see the payoff when a younger student tells you that they want to be an engineer someday.

LUKE CHERNIACK





Hosting the Engineering Ambassadors Network National Conference

We were delighted to hold the EA Network national conference at Rensselaer this year. Many senior EAs took part in training the Junior EAs through workshops and presentation critiquing. Not only did the senior EAs mentor the RPI students, but they were able to help students from other schools as well. We were excited to have two presentations sponsored by the Bender Science Foundation. These presentations were developed by Chris, Diana, Francesca, Stuart, and Sydney. We are really excited to have more biomedical engineering presentations, and we are also excited about receiving a grant to get EEGs and ECGs for hands-on activities. With hosting the conference, we had the pleasure of hosting many alumni at our banquet. Maranda Wong '13 and Jeffrey Morton '14 who are now at UTC were our keynote speakers for the evening, and we had a total of 12 alumni in attendance. We were so excited to host this event and introduce our new members to our organization, while reconnecting with our graduated members. Thank you to all who came!



Congrats to our newest EAs! Yashna Basnal, Alyssa Borges, Chyim Bowen, Sydney Caparaso, Andrew Chafy, Sue Cho, Katherine Cianciotti, Allison Douglas, Mary Finnerty, Anand Gandhi, Christopher Gasparis, Leanne Jones, Diana Klyuchnik, Rachel Kolveck, Francesca LaPinta, Julia Leszczuk, Jonathan Michala, Nikihlas Murthy, Evan Nielson, Emily Ortega, John Reed, Emmanuel Sylvester, & Robert Trudeau.

Tyler Brown, who graduated in 2017, now works at BAE Systems in Endicott, New York. He has started a partnership with our organization so that BAE can learn from EAs to teach local high school students, and potentially create an internship program with ambassadors to create more professional opportunities for our organization. A group of ambassadors went to visit BAE Systems to learn more about their company, as well as present to them about our organization. Our ambassadors loved touring the facility. BAE showed our ambassadors plane and helicopter flight simulators, their newly-developed hybrid buses, and thorough testing for their flight control systems. Emmanuel Sylvester '21 thought "the most impressive thing was seeing the advancements being made to make public transportation more efficient." Lily O'Halloran '20 really enjoyed the purpose of this visit, noting that "these kinds of tours are beneficial to Engineering Ambassadors because not only do the students get to see companies that they can potentially work for, but also the companies are able to know us and all of the work we do." We love partnering with new companies, and we love hearing that alumni are continuing their passion to teach young students about engineering!



A Note from Tyler Brown '17...

Hey everyone!

After graduating from RPI, I moved to Binghamton, NY to work for BAE Systems as part of their Engineering Leadership Development Program (ELDP). It's a rotational program that offers a paid master's degree and in-house technical coursework. At the Binghamton site, we primarily create flight control and engine control systems for commercial aircrafts. My first rotation was creating the operating system for GE's newest jet engine, GE9X. I then moved onto writing

software drivers for our hardware we're providing Lockheed Martin's F-35 fighter jet. My latest rotation includes writing firmware for actuator electronics going on Boeing's 777x.

I'm currently pursuing my master's in CS at SUNY Binghamton, and hope to complete the degree by next December. From the leadership program, I've had the opportunity to take the lead on several projects ranging from recruitment for our site, various STEM outreach events, and currently creating company-wide software to aid in automating certain tasks. I'm also leading my peers with a new business development project in electric actuation. In my free time, I'm just enjoying what the area has to offer, like the great kayaking and fun hiking trails.

One of the best parts of BAE Systems so far is their willingness to explore new ideas. Many of my leadership roles I acquired from pitching an idea and securing funding for it. They are very passionate about STEM outreach, so when I pitched a new STEM outreach program similar to EA, they jumped right on board. They loved what I told them about RPI EA, so in early October we hosted several EAs for the day. They toured facilities, labs, and simulators, as well as engaged in conversation on how we could assist each other.

Now we're currently trying to work out the details of a partnership with RPI EA, because we believe there's so much potential growth in the outreach we can perform. Once we get our foot out the door, I'm hoping we can expand with RPI EA in some new and creative ways never done before!

Keep up all the great work you guys do!

RPI Engineering Ambassadors is always accepting donations to fund our outreach. You can call RenXchange at 518-276-6055 and ask to donate to the Engineering Ambassadors fund directly. We are also always open to new company partnerships like the one above! Please contact Elizabeth Herkenham (herkee2@rpi.edu) if you would like to collaborate on a new program!