

FALL 2019 ISSUE

RPI ENGINEERING AMBASSADORS

NEWSLETTER

A Letter From Our E-Board

Hello,

RPI's Engineering Ambassadors have kicked off the 2019-2020 academic year! The fall semester has been one of our busiest yet, as we have participated in a variety of outreach events including school visits, STEM Days, and other community events both on and off campus. We have also been busy planning and maintaining a number of programs that the organization has developed, and is excited to kick off.

In September, our newest cohort of EAs and seven senior mentors traveled to WPI to attend the annual EA Northeast Network Conference. The new EAs learned important presentation skills and developed engaging presentations on STEM topics such as space telescopes, biomimicry, and gyroscopes! Our senior mentors guided the junior EAs through the process, but also developed two short movies using techniques from an exceptional workshop by Lauren Murphy, a Penn State EA alumni.

One of our biggest projects this semester happened right on campus! We worked closely with the School of Engineering and RPI's Admissions Office to design, organize, and execute tours of the School of Engineering during RPI's annual Fall Open House. A group of EAs developed an in-depth itinerary that represented some of the greatest attributes the School of Engineering has to offer, including some of our prestigious labs, workshops, and classrooms. We estimated to have given a tour to over 500 high schoolers!

Our special school programs, Troy Prep, RISE High, and Math and Robotics, also had a successful semester. Two RISE High modules, prosthetics and physics of color, were given to 7th and 8th graders this semester. We are also excited to begin developing three new physics modules in the spring for 9th graders!

As we near the end of the semester, we have three seniors, Louis, Leili and Liam who are graduating and moving beyond RPI. Although we are sad to see them go, we appreciate their dedication and many contributions to the organization. We are excited to see what they will accomplish! We continue to express our appreciation for our alumni and their support of our program. We hope that this note finds you well, and as always we would love to hear from you!



Carly Nadler
President

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Fall 2019 Executive Board



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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.



Francesca LaPinta

Major: Mechanical Engineering

Hometown: Queens, NY

Presentations: Biosensors, Design of an Athlete, Drag Force

2020 Spring Internship: I will be working at GE Power in Schenectady, New York this upcoming spring. There, I will be a design engineering intern, working on both steam turbines and gas generators.

Other involvements at RPI: Along with EA, I am part of the executive board of the RPI Society of Women Engineers and have been since my freshman year. RPI SWE provides resources for female engineers on campus as well as hosts many outreach events to get young girls involved in STEM. I am also a calculus mentor in the iPERSIST mentoring program. As a mentor, I provide first semester freshmen with support in both calculus and in transitioning to RPI.

Favorite part of EA: One of the best things about EA is seeing students get excited and learning from a presentation that you made. Knowing that all the work and effort you put into a presentation inspires students to want to learn more is extremely rewarding.

Major: Computer Systems Engineering & Computer Science

Hometown: Smithfield, RI

Presentations: Hydrogen Fuel Cells, Math and Robotics, Digital Sound, Designing a Safe Rollercoaster

Research at RPI: I currently work for the Cognitive and Immersive Systems Laboratory (CISL) here at RPI. I have worked on projects involving the development of a conversational artificial intelligence agent and a web-based tool to help developers at CISL easily create dialogues for the lab's flagship Mandarin Project. (The Mandarin Project is a 360-degree, fully immersive, virtual environment to help students learn Mandarin through conversation with AI.)

Favorite Part of EA: I love working with students and helping them to understand the hands-on activities we give them. It's very rewarding to see the students get excited about engineering. I have even had a couple students tell me that our school visit encouraged them to pursue engineering as a career path, and it's very fulfilling to have influenced someone's life that way.



Nikhilas Murthy

Major: Biomedical Engineering

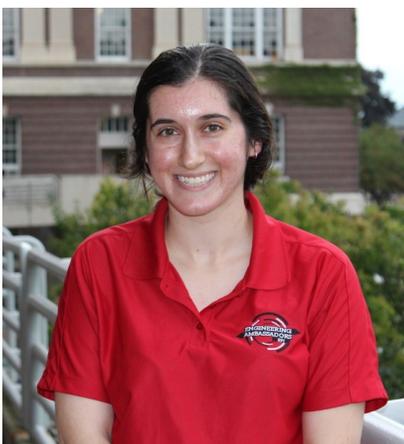
Hometown: Monroe, CT

Presentations: Biosensors, Design of an Athlete, Evolution of Prosthetics, Cell and Tissue Engineering

2019 Summer: I worked at RPI within my research lab to collect and analyze data for my project, Smart Fracture Fixation Device. I was also able to participate in several EA events this summer, including a hands-on activity fair and Honor the Code for RPI's freshman class.

Research at RPI: I work with Dr. Eric Ledet in the Innovative Medical Devices lab in the Biomedical Engineering Department. I am developing a device to monitor the state of healing of a bone fracture. Currently, I am optimizing the design of the prototype by analyzing computer simulations that I developed.

Favorite Part of EA: What I enjoy the most about EA is showcasing STEM in an engaging and interactive way. Many students have an expectation of what STEM is, and our ambassadors introduce them to a more broad scope. I love seeing students connect their personal interests, for example sports, space, or cars, to STEM and learn about the possibilities available.



Sydney Caparaso

EA CONFERENCE

On September 23rd, 7 senior EA's and 25 members of the newest cohort travelled to Worcester Polytechnic Institute for the annual EA Northeast Network conference. Throughout this amazing weekend, our new EAs learned various techniques, observed multiple presentations and interacted with many other new EAs and alumnus. Although they were put to the test in creating and learning a presentation in a short amount of time, many of them had the opportunity to give ideas and feedback to their fellow peers. The senior EAs were also put to the test with creating a 2 minute video. They developed a new member recruitment video, and an outreach video explaining why engineering is important and for everyone.



2019 RPI EA Cohort - largest class ever!



EA Alumnus : Nick Gnitczvich '16 Mech E and Adriana Rojas '12 Chem E both attended this year's Alumni Dinner at WPI EA Northeast Network Conference. They took time to share their work & grad school experiences with us.

ACCOMPLISHMENTS

This year has been filled with so much exciting news. Thanks to everyone who have supported our EA's since day one. Some of the organizations and companies that have offered and put their trust in the work of our Ambassadors.



ALUMNI UPDATES

Nick Gnitzcavich

Background: Nick graduated from RPI in 2016 as a mechanical engineering major, and was very active in football and Greek life. The EA presentation his team developed was how engineers play a major role with athletics.



After graduation in 2016, I returned to my home state of Connecticut. I began work at Pratt and Whitney as a mechanical design engineer supporting our new commercial product – The Next Generation Product Family Geared Turbofan. Early on, I got a chance to work on numerous fast-paced projects in our Externals Engineering department designing tubes, manifolds, brackets, wiring harnesses, and much more. I was able to learn many technical skills while still managing to be a leader in my tasks. In 2017, I transitioned to a project engineering role supporting our Advanced Engine military program. In this role, I was able to lead a multi-disciplinary team to support critical air-force milestones. With my experiences, now in 2019, I have come back to the commercial engineering side of the business where I have been transitioning to be an Integrated Product Team Lead.

Through my work experiences, I have found an interest in focusing on technical aspects but also being a leader within the organization. I have begun working on a Master's degree in Business Analytics and Project Management at the University of Connecticut through the UTC Employee Scholar Program. I plan to graduate in December 2020. I have attended a few of the recent EA conferences since graduation and have been extremely impressed how the Engineering Ambassador program has grown. Keep up the great work!

-Nick Gnitzcavich

Jacqueline Sanchez

Background: Jackie graduated from RPI in 2016 with a BS and MS in civil engineering. She helped develop the General Engineering / Iron Man & Civil Engineering presentation.



After graduation, I moved back to Panama and started working at Ingenieria RM, one of the oldest construction companies in the country. Ingenieria RM didn't have a rotation program, but I still managed to move around to different positions and levels of responsibilities throughout the duration of the project. My first assignment was a 56 story building by the Sea. I was doing a lot of Civil Engineering field work, but as time passed they began trusting me with more managerial responsibilities. Fast forward to this year, and I am now working at the company's headquarters as head of the department of Cost Analysis, supervising the costs and progression of all our active projects.

Outside of work I haven't been doing as much outreach through Engineering as I probably could; nevertheless, I have recently been invited to cohost weekend workshops to "train the trainers" of existing outreach organizations here in Panama. It was during the first of these workshops that I was reminded of how powerful our EA skills make us, and I was definitively left wanting to do more. Engineering Ambassadors was a fundamental part of my college experience, and what I gained from the program still plays an important role in my professional life today. My advice to all active EAs is to make the most out of the program, reach out to alumni, and have a chat with Elizabeth every now and then, she will teach you more than you realize if you listen to her. To the other alumni, don't let life and routines make you forget what you are capable of. We were taught to be Lynchpins when we first join Engineering Ambassadors; but once we graduate, it's really up to us to keep that fire alive and become indispensable once again. Thank you EAs, and keep up the excellent work!

-Jackie Sánchez



Rensselaer

Feeling Generous?

Simply Call RenXchange at 518-276-6055 and ask to donate to the Engineering Ambassadors fund directly. Engineering ambassadors is always willing to accept donations to help continue bringing the inspiring field of STEM to the youth.