

Ryan Begin

Rbegin369@gmail.com | 104 Mary Ann Wood Dr. Ithaca, NY 14850 | projectredland.com/about.html | cell: 978.204.1601

EDUCATION

Cornell University, College of Engineering, Ithaca, NY **Expected May 2023**
Bachelor of Science in Mechanical Engineering, **GPA: 3.61**
Selected Coursework: Statics • Dynamics • System Dynamics • Mechatronics • Mechanical Synthesis • Heat Transfer • Fluid Mechanics • Thermodynamics • IOT Systems • Probability & Statistics

SPECIALIZED SKILLS

Technical: MATLAB, C/C++, Python, JavaScript, AWS
Engineering: SolidWorks, AutoCAD, Inventor, microcontrollers and sensors, machining, Excel
Professional: Communication, leadership, project management, organization

PROFESSIONAL EXPERIENCE

R&D Intern, Schluter Systems, Plattsburgh, NY **May-Jul 2022**

- Designed and implemented improvements to in-house designed compression testing machine.
- Planned and organized product testing based on applicable industry standards.
- Assisted other engineers in creating test setups and carrying out various product test procedures.

Engineering Intern, Dexter Russel Inc., Southbridge, MA **Jun-Aug 2021**

- Designed and modified fixtures for various manual and automated manufacturing tasks.
- Coordinated with production supervisors to test fixtures in the production environment.
- Collected and organized data to assist with rollout of new ERP system for the company.

Software Engineering Intern, Solid State Scientific Co., Nashua, NH **Jun-Aug 2020**

- Developed data ingestion infrastructure for the Air Force cloud using various AWS services to develop.
- Collaborated to create data parsing systems using Python and Kotlin.

RESEARCH AND ENGINEERING PROJECTS

LED Fixture: "Glow Bar", Personal Project **Feb 2022-Present**

- Engineered the physical components as well as the electrical systems of an LED light display fixture.
- Manufactured parts using machining, laser cutting, and 3D printing.
- Programmed microcontroller to allow Wi-Fi based control of the fixture through a web app I built.

Thompkins County Road Monitoring, Internet of Things Class Project, Cornell University **Feb 2022-May 2022**

- Created heat transfer model for under road temperature sensor.
- Improved electrical system and power consumption of the monitoring station.
- Engaged with community partners to identify primary objectives.

Exploratory Spacecraft Development, Space Systems Design Studio, Cornell University **Oct 2019-May 2022**

- Modeled viability of a new spacecraft concept using MATLAB.
- Designed and implemented a method of optical communication for mini satellites called ChipSats.
- Developed new use cases for ChipSats and early-stage development of a chipsat rover.

LEADERSHIP EXPERIENCE

House Manager, Delta Tau Delta - Beta Omicron Chapter, Ithaca, NY **Jan-Dec 2022**

- Maintained the shelter, including working with university and city staff to organize maintenance work, inspections, permits, and general operation of the shelter.
- Pursued continuous improvement projects for the shelter.

Treasurer, Delta Tau Delta - Beta Omicron Chapter, Ithaca, NY **Jan-Dec 2021**

- Organized member billing, and collections as well as day to day financial operation.
- Managed chapter budget and interfaced with university staff and alumni corporation to maintain the shelter budget.