

EDUCATION

- **Rochester Institute of Technology** Rochester, NY
Bachelors in Physics; Minors: Computer Science, Math, Electrical Engineering GPA: 3.9 Aug. 2013 – Jun. 2017

EXPERIENCE

- **Solu Technology Partners** Rochester, NY
Full StackSoftware Engineer July 2017 - Present
 - **Scrum Team:** Work as a member of an Agile Scrum team to provide state-of-the-art Angular 2 Material Applications, with daily code reviews to maintain a fast-paced agenda
 - **Spring/MySQL:** Integrate a MySQL database architecture with front-end components using the Spring framework, Java Persistence, and RESTful API.
- **WiTricity Corporation** Boston, MA
R&D Engineer (Co-Op) Jan 2014 - Oct 2016
 - **Wireless Power Transfer:** Developed auxiliary systems to prevent foreign object and living object intervention within the field to aid in the safety of wireless power transfer.
 - **Embedded Systems Firmware:** Produced a serial method of transferring data from a PSoC5 microcontroller reading sensor measurements into real-time and offline datasets.
 - **PCB Prototyping:** Used Altium PCB designer to create new and space-efficient prototype boards for sensor development and positioning. Holders and caps for the designs were 3D modeled using Solidworks.
 - **Machine Learning:** Created trained models for position detection using machine learning techniques in python using the toolkit SKLearn. Developed a method to adapt the model in real time to provide directives for position alignment.
 - **Robotics:** Developed a CNC for consistent and persistent testing over a wide range of sensor positions, programmed to be interactively controlled by a Python GUI.
- **Laser Interferometer Gravitational-Wave Observatory @ Caltech** Pasadena, CA
Astrophysicist Summer 2016
 - **Gravitational Wave Astronomy:** Received training on the design behind the most sensitive detector made by mankind and how to extract relevant Gravitational Wave information from it.
 - **Multi-threaded Programming (OpenMP):** Used an Open Source to create a performance-oriented method of filtering signal data by utilizing multi-threaded CPUs.
 - **Presentation and Reporting:** Completed the project with a publishable scientific report, as well as a presentation given to the entire LIGO collaboration.
- **FermiLab** Chicago, IL
High Energy Particle Physicist Fall 2014 - Summer 2015
 - **Particle Tracking Algorithm:** Produced an algorithm in C++ to recreate the path of a Proton from a Neutrino interaction using CCD data within MINERvA
 - **Team-specific Legacy Framework:** Utilized framework structure created previously by other scientists to augment the algorithm such that the algorithm could be used on incoming data from the detector
 - **Large Team Communication:** Experience in navigating a large volume of collaborators, seeking assistance only where needed.
- **Lab for Multiwavelength Astrophysics @ RIT** Rochester, NY
Astrophysicist 2013-2017
 - **3D data modeling:** Visualized 3D Morpho-kinematic models of nearby Galaxy NGC1386 in the interest of characterizing the mechanism by which its Supermassive Black Hole accretes matter.
 - **Workshop Teaching:** Taught a workshop class at Universidade Federal do Rio Grande do Sul based on the modeling techniques used.

PROJECTS

- **Personal Website:** Static website produced using the Jekyll framework, complete with version control, a blogging system, templating, and continuous integration.
- **Pollaroid:** An Open Source tool to allow users to reach out to their local representatives and participate in political polls.
- **Let's Go There!:** A Nativescript application using the Yelp API to determine where a group should eat lunch.