

## Objective

To advance the state of space exploration through the development of innovative embedded software.  
Available for full-time employment July of 2019.

## Education

**Rochester Institute of Technology** *Rochester, NY* Jan 2016 – May 2019  
Computer Science, Bachelor of Science  
GPA: 3.7

**Raritan Valley Community College** *Branchburg, NJ* Sep 2014 – Dec 2015  
Computer Science, Associate of Science  
GPA: 3.75

## Technical Skills

Languages - C, Python, C++, Java, Bash, L<sup>A</sup>T<sub>E</sub>X, Javascript  
Software - Git, Docker, NASA cFE, Ball Aerospace COSMOS, Bamboo Automated Testing, Linux, FreeRTOS

## Engineering Experience

**Johns Hopkins Applied Physics Laboratory** *Software Engineer Co-Op | Laurel, MD* Jan 2018 – Present  
NASA DART - Double Asteroid Redirection Test Mission

- Wrote flight software utilizing NASA Core Flight Executive
- Adapted Ball Aerospace COSMOS to work with DART's command and data handling system
- Leveraged code reuse by porting over software from Parker Solar Probe for DART
- Collaborated on DART's software testbed developing in C++, also utilizing NASA cFE

### Software in the Loop Environment for Testing Flight Software (SWIL)

- Created adapters to relay SpaceWire traffic over UDP for testbed and flight software
- Utilized Docker to develop an environment that increased frequency of testing by a factor of four
- Enabled developers to rapidly implement features and test on dev machines
- JHU APL Explorer Award granted to DART team for bringing modern software practices to space
- Attended Dockercon San Francisco, work on SWIL was presented to the main audience

### Deep Learning for Space - Internal Research and Development (IRAD)

- Ported over flight software to run on an ARM64 Jetson TX2 running Ubuntu
- Developed NASA cFE application to integrate with an image classifier and telemeter classifications
- Implemented ground software to process incoming data and display on an OpenLayer map using web technology

**L3 Global Communications Solutions** *Software Engineer Co-Op | Victor, NY* Jan – Aug 2017  
VSAT Ground Stations

- Developed embedded software in C for AVR devices
- Gained experience in C++ development for embedded Linux
- Worked in-depth with serial communication
- Created driver interfaces to ancillary hardware

## Additional Experience

**RIT Space Exploration (SPEX)** *Rochester, NY* Jan 2016 – Present  
Member

- Served as Avionics team lead for CubeSat Launch Initiative proposal
- Wrote software for SPEX's Hight Altitude Balloon 3 integrating with various sensors
- Explored potential CubeSat payload for testing new memory technologies

Technical Coordinator – Admin Jun 2018 – Present

- Interact with all project teams in a managerial role
- Ensure teams have direction needed to achieve objectives
- Act as technical bridge between admins and project members