

# TYLER KUHNS

(716)-803-7708 tk3775@rit.edu  
189 E Prospect Ave, Hamburg, NY 14075

**Objective:** Seeking a summer internship or summer Co-op.

## Education

Rochester Institute of Technology **GPA: 3.6/4.0**  
1 Lomb Memorial Dr. Rochester, NY 14623 **Expected Graduation:** May 2018  
**Major:** Imaging Science **Expected Minors:** Computer Engineering, and Mathematics

## Projects

- **Freshman Imaging Project – Spring 2015:** Freshman imaging science team member who worked together to design and build a transient imaging system and a 3D viewing systems for the transient imaging. This project required teamwork, fast-paced research and development, and creative problem solving. I was working to find a sensor that would work with our system, and to find a way to modify it to output the data that our code needed.
- **SpaceX Hyperloop competition – August 2015 to January 2016:** Founding member & Software Team Lead of the RIT Imaging Science team working to create two subsystems for the Hyperloop pods that detects structural defects, and a free space optical communication system for internet connectivity and telemetry data. Website: <https://hyperloop.rit.edu>
  - **AWARD:** “Special Innovation Award” – SpaceX Hyperloop Design Weekend Competition (Jan 29<sup>th</sup> – 30<sup>th</sup> 2016)
  - Plans to pursue intellectual property claims
- **Contracted by SpaceX – Current:** Both administrative and image processing lead on a project to build an inspection system for the first functional testing of the Hyperloop concept

## Work Experience:

### Rochester Institute of Technology

**Research Assistant** *Sept 2016 – Current*

- Working under Dr. Carl Salvaggio and PhD student Mahshad Heza automatic rooftop damage inspection.
- Collect data, assist in use of data to create more test images and train an algorithm to find roof-top damage

**Orientation Supervisor** *Aug. 2016*

- Train and lead Orientation Leaders before and during New Student Orientation
- Effectively communicated with central/professional staff and Orientation Leaders
- Responsible for making adjustments to adhere to last-minute orientation-wide changes
- Lead the Orientation Leaders to be confident and comfortable in their positions

**Air Force Research Lab – Automated Target Recognition Center Intern** *May 2016 – Aug. 2016*

- Developed an addon for Blender to create Electro-Optical, LIDAR, and SAR simulations
- Training on the High Performance Computing System
- Security: National Agency Check with Inquiries (NACI)

**Research Assistant** *Jan 2016 – May 2016*

- Working under Dr. Roger Dube on research into variable stars.
- Perform frequency analysis on data and thoroughly document the research progress

**Orientation Leader** *Aug. 2015*

- Lead a team of freshman through orientation while helping them feel comfortable at RIT and with each other
- Effectively communicated with lead orientation assistants and freshman
- Responsible for making adjustments to adhere to last-minute orientation-wide changes

**Supplemental Instruction Leader, Pre-calculus and Photographic Technology** *Jan. 2015 – Dec. 2015*

- Plan and facilitate weekly study sessions for students in classes that are known to have high drop out and failure rates
- Lead students to find successful methods for studying and completing classwork, while working with their peers.

## Relevant Courses:

Linear & Fourier Methods for Imaging	Interactions Between Light and Matter (IMGS 341)
Interactions Between Light and Matter (IMGS 341)	Probability and Statistics
Introduction to Computing and Control (IMGS 180)	Noise and Systems Modeling (Current)
Differential Equations	Image Processing and Computer Vision (Current)
Modern Physics I	Digital Systems Design 1 (Current)
Multivariable & Vector Calculus	Radiometry (Current)

**Programming Languages:** Python, MATLAB, and minimal experience with C++ .

**Software:** adept with Eureka, Adobe Photoshop, Adobe Lightroom, Microsoft Word, and Microsoft Excel, and Git.

**Hardware:** use of Raspberry Pi including GPIO pins, experience building basic circuits, and using basic motors

**Professional Memberships:** International Society for Optics and Photonics (SPIE) – RIT chapter, Cum Laude Society, & Imaging Science Club