Jeremiah Munson

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SKILLS

- Systems Engineering
- Project Management
- Documentation
- Systems Tool Kit (STK)
- Physics, Math, & CS
- Python, C/C++
- Interdisciplinary Work
- Self-Directed Learning
- French

EDUCATION

Bachelor of Arts in Physics, *magna cum laude*, 2019

Department of Physics and Astronomy, Carthage College, Kenosha, WI

- GPA on unweighted 4.00 scale: 3.86 overall, 3.89 in Major, 4.00 in Math and Comp Sci Minors
- Notable Courses Outside Major/Minors: Advanced French (passed Carthage College Proficiency Exam), Intro to 3D Design, Public Speaking, and Intro to Public Policy among others.
- Carthage Space Sciences, Comp Sci Club, Society of Physics Students, Phi Kappa Sigma, Concert/Pep Band

EXPERIENCE

June 2016 – May 2019

Systems Engineer: CaNOP CubeSat

Wisconsin Space Grant Consortium, Carthage College: Kenosha, WI

- Orchestrated up to 20 students in subsystem teams ensuring collaboration. Led system requirement, design, and hardware integration.
- Organized and led weekly, full team meetings covering individual subsystem progress and next steps.
- Led the creation and organization of mission documentation including the Conceptual Design Review, System Requirements Review (SRR), Preliminary Design Review (PDR), and Critical Design Review (CDR). The SRR, PDR, and CDR were created as presentations and were presented to NASA employees.
- Performed mission simulations with Systems Tool Kit (STK) including power simulations, link coverage, and target imaging coverage.

June 2018 – August 2018

NASA Space Academy Research Associate: CubeSat Design and Engineering Model

NASA John H. Glenn Research Center: Cleveland, OH

- Defined high altitude ballon mission to advance the Technology Readiness Level (TRL) of an experimental, nano-enhanced satellite power system created at the Rochester Institute of Technology.
- Designed, assembled, and tested payload electronics around an Arduino Uno with custom Arduino shield and BeagleBone Black to cycle experimental batteries during flight.
- Launched high altitude balloon experiment and analyzed recovered data using Python.

December 2016 – April 2017

Power System Lead: Carthage College Future Vehicle Design Team

Carthage College, NASA Glenn Research Center Design Competition

- Responsible for the power system doing the power analyses and simulations. Researched different batteries and environmentally friendly energy sources to accommodate the "green" nature of the competition.

July 2014 – May 2015

Nanotechnology Intern

Rushford Conductive NanoFiber/Rushford NanoElectroChemistry Co.: Rushford, MN

- Assembled impedance meters, researched applications of multi-walled carbon nanotubes, and assisted with pulse electrochemical machining with nanometer precision. Learned about multi-walled and single-walled carbon nanotubes and graphene and learned the basics of LabView.

ADDITIONAL INFORMATION

Achievements/ Honor Societies

Sigma Pi Sigma Physics Honor Society: Inducted May 2019
NASA Academy Alumni Association (NAAA): Inducted August 2018
MadHacks Mini Hackathon Security and Privacy Category Winner: April 2018
Carthage College Outstanding Physics Student Award: 2016-2017 Academic School Year
Systems Tool Kit (STK) Level 1 Certified: July 2016
Eagle Scout: November 2015

Presentations

Undergraduate Senior Thesis Defense: May 2019
Carthage College Natural and Social Sciences Colloquium Series: September 2018
NASA Glenn Research Center Summer Interns Poster Session: July 2018
CubeSat Developers Workshop: April-May 2018
Carthage College Celebration of Scholars: April 2018
American Society for Gravitational and Space Research Conference: October 2017
CubeSat Workshop FOR Students BY Students: August 2016
Wisconsin Space Grant Consortium Conference: August 2016