Jeremiah Munson

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SKILLS

Technical Skills

- Systems Tool Kit (STK)
- Satellite Design
- Python
- C/C++
- Ruby
- Basic Electronics

"Soft" Skills

- Systems Engineering
- Project Management
- Leadership
- Time Management
- Interdisciplinary Team Cooperation
- Documentation
- French: Carthage College Proficiency Exam

EDUCATION

2015 – 2019 (Anticipated)

Bachelor of Arts in Physics

Department of Physics and Astronomy, Carthage College

- Independent Research (Satellite Systems Engineering), Electricity and Magnetism, Mechanics (Fall 2018), Experimental Physics, Thermodynamics, Modern Physics, Math Methods, Multivariate Calculus, Differential Equations, Linear Algebra, and Data Structures and Algorithms (Fall 2018)
- Space Sciences, Society of Physics Students, Comp Sci Club, Phi Kappa Sigma, Concert Band, Pep Band
- GPA: 3.82, GPA in Major: 3.88 on unweighted 4.00 scale

EXPERIENCE

June 2016 – present

Systems Engineer: CaNOP CubeSat

Wisconsin Space Grant Consortium, Carthage College: Kenosha, WI

- Orchestrate 20 students in subsystem teams ensuring collaboration in producing accurate documentation and the successful integrated operation of the flight hardware. Complete any non-subsystem specific tasks.
- Organized creation of bill of materials (BOM) spreadsheet. Outlined and organized creation of System Requirements Review (SRR), Preliminary Design Review (PDR), and Critical Design Review (CDR) based upon various templates. Co-presented PDR and CDR to NASA employees. Performed mission simulations with Systems Tool Kit (STK) including power simulations.

June 2018 – August 2018

NASA Space Academy Research Associate: CubeSat Design and Engineering Model

NASA John H. Glenn Research Center: Cleveland, OH

- Defined CubeSat and High Altitude Ballon missions to advance the Technology Readiness Level (TRL) of the experimental, nano-enhanced satellite power system created by the Rochester Institute of Technology.
- Launched High Altitude Balloon (HAB) experiment. Designed, Assembled, and Tested payload electronics around an Arduino Uno microcontroller and Arduino shield to perform primary objectives cycling experimental batteries during flight. Utilized a BeagleBone Black to assist data storage and transmission.

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

Dean's List: Fall 2015, Spring 2016, Fall 2016, Spring 2017, Fall 2017, Spring 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

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