JONATHAN PREHEIM

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EDUCATION

University of Idaho – Moscow, ID **Expected May 2019**
Bachelor of Science in Electrical Engineering
GPA 3.91, National Merit Scholar, Honors Program
Relevant Courses: Digital Filtering, Propagation of Wireless Signals, Signals and Systems II, RF IC Design, Microwave and Millimeter Wave Circuits, Power Electronics, Energy Systems II, Electromagnetic Theory, Microelectronics II, Microcontrollers, Numerical Methods

WORK EXPERIENCE

Systems Engineering Intern – GOES-R **May 2018 – August 2018**
Lockheed Martin Space Systems – Littleton, CO

- Verified requirements in Rational DOORS by reviewing test data and updated customer reports
- Characterized cables with a network analyzer to calibrate RF test equipment
- Reviewed harness schematics, suggested changes and updated connector pinout documentation

Circuits II Laboratory Teaching Assistant **Aug 2017 – Dec 2017**
University of Idaho – Moscow, ID

- Instructed students on laboratory procedures and AC circuits concepts
- Wrote and edited laboratory procedures and graded student reports

Electrical Engineering Intern – TechEdSat5 **June 2017 – Aug 2017**
NASA Ames Research Center – Moffet Field, CA

- Analyzed CubeSat power system and telemetry to diagnose an in-flight anomaly
- Created functional diagrams of the power system
- Tested solar panels and batteries and reported procedure and results
- Published and presented a poster summarizing my work and findings

Maintenance Associate (Seasonal) **May 2014 – Jan 2017**
Friendship Community – Lancaster, PA

- Inspected vehicles for safety, serviced HVAC systems, installed network cables and ports, performed general maintenance tasks such as pressure washing, landscaping, hauling, and repair

PROJECTS

NASA Undergraduate Student Instrument Project – University of Idaho **Oct 2015 – Present**
Project Lead and Budget Manager

- Leading a small team designing a balloon-based local positioning system
- Programming software defined radios for distance measurement
- Designing electrical systems and selecting components like antennas and microcontrollers
- Monitoring $200,000 budget and purchasing hardware and supplies
- Integrated tracking systems, radios and motors on a high-altitude microbiological sampling payload
- Developed a multi-spectral imaging payload for a high-altitude balloon

ASME RC Micro-Baja Team– University of Idaho **Sept 2015 – May 2016**

- Integrated electrical systems for a small off-road radio-controlled vehicle
- Designed and manufactured carbon fiber chassis

SKILLS AND KNOWLEDGE

Programming languages: Python, MATLAB, C++
Software: Linux, Cadence Virtuoso, LTSpice, GNU Radio, Autodesk Eagle, Autodesk Inventor, Microsoft Office
Skills: Software defined radio, soldering, microcontrollers, technical presentations, technical drawing, basic shop tools, printed circuit board layout and assembly, 3D printing, Internet Protocol networks, wireless positioning