Tyler Traver

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University of Colorado Boulder, Boulder, CO

M.S. Mechanical Engineering: GPA 3.5 / 4.0 **May 2017**
B.S. Engineering Physics: GPA 3.4 / 4.0 **May 2014**
Minor Computer Science **May 2014**

Work Experience

Laboratory for Atmospheric and Space Physics (LASP)

Software Engineer **April 2013 - Present**

- Developed web applications for viewing dynamic metadata and scientific datasets
- Designed several user interfaces and the backend services to feed data to websites
- Worked with agile and kanban project management

Command Controller: Cubesat **October 2012 - April 2013**

- Uplinked commands and downloaded scientific data during satellite overhead passes.

Command Controller: QuikScat, Kepler, SORCE, AIM **May 2011 - October 2012**

- Performed real time spacecraft operation commanding and data downlink
- Wrote code to support ground operations
- Reported on short and long term spacecraft health/safety.
- Lead student operations on several subsystems

Lab/Technical Experience

Systems Engineering/Design — Integration of a system for UAV tracking. Design included writing tracking software, design and build of a ground station for a 2-axis gimbal, design and build of various optical and laser mounts for the gimbal and integration testing of the completed system.
Product Design — Designed a novel consumer workout camera. Involved rapid prototyping using a 3D printer, a custom coded raspberry Pi computer and gathering user feedback via interviews.
CAD/Fabrication — CAD design of a RC car body shaped like a mouse, engine pistons, and for numerous components of the design projects mentioned above. Experience with DFMA including a full feasibility and cost report on a novel soldering iron and a RC quadcopter.
Optics — Experimentation and setup of optical components including: lasers, mirrors, lenses, photometers, optical traps and optical resonators.
Electronics — Experience with linear and digital circuit design including builds of a digital thermometer, a guitar “wah” effect pedal and a laser intensity monitor.
Data Analysis/Research — Experience setting up physical, optical and electronic experiments and analyzing the data with tools such as MathCad.