

Seth Berryhill

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Education

Bachelor of Science - Mechanical Engineering

University of Idaho - Moscow, ID

Aug 2019

Relevant Engineering Experience

Quadcopter Control System Researcher - Senior Capstone Design Project

May - July 2019

- Owned software development in a project with 4 members, leading meetings, and submitting progress reports to stakeholders on a weekly basis.
- Designed and wrote a control system for stabilizing a quadcopter drone in C++ using PID control.
- Used Kalman filtering and sensor fusion to determine position used in control response.
- Understood and identified system characteristics using experience with system identification.

Project Lead - Vandal Atmospheric Science Team

Aug 2018 - May 2019

- Led a team of three to design and test mechatronic automatic guided return systems to withstand extreme high altitude environments.
- Completed literature review of guided return platforms, atmospheric conditions, and the available tools.
- Launched and successfully retrieved weather balloons from 100,000 feet, gathering meteorological and solar data and conducting high altitude experiments, such as parachute testing for NASA.
- Developed system for documenting designs, data collection, and experiments.

Project Engineering Intern - Hoffman Construction

May - Aug 2018

- Managed and updated a database of electronic construction drawings and blueprints to reflect changes made during the construction of an underground light rail station.
- Improved efficiency in document management by automating 8 hours a month of work.
- Led safety review and presented at daily standup meetings that I assisted in organizing, consisting of 10 project managers and foremen.

Compliant Guitar Capo - Compliant Mechanisms Course

Aug - Dec 2018

- Used principles of compliant design to develop a guitar capo for single-injection molding.
- Wrote tools to calculate design parameters in Python.
- Created Python tools to model our system and produce a force and stress analysis, and kinematic diagram.

Other Experience

- Seasonal Lead for five years at the City of Buckley Department of Parks and Recreation.
- Treasurer of the Climbing Team for two years at the University of Idaho.

Technical Skills

Programming:	Python, C++, Matlab, R, LaTeX, Git, html/css
Mechanical Analysis:	Control Theory, Sensor Fusion, Kinematics, FMEA
Software:	ABAQUS, SolidWorks

Awards and Honors

- Eagle Scout, Troop 577
- Discover Idaho Silver Scholarship
- 1st Place, Recreational Division - Veni Vidi Ascendi Rock Climbing Competition