

# Seth Berryhill

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## Education

**Bachelor of Science - Mechanical Engineering**  
University of Idaho - Moscow, ID

**Aug 2019**

## Relevant Engineering Experience

**Project Lead: Guided Parafoil - Vandal Atmospheric Science Team** **Aug 2018 - Present**

- 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.
- Launch and successfully retrieve weather balloons from 100,000 feet, gathering meteorological and solar data and conducting high altitude experiments (such as parachute testing for NASA).
- Develop system for documenting designs, data collection, and experiments.

**Project Engineering Intern - Hoffman Construction** **Summer 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 removing 8 hours a month of work. Changes include writing bash scripts to produce 1000+ directories instead of manually making and titling them.
- Led safety review and presented at daily "Stand Up" meetings that I assisted in organizing, consisting of 10 project managers and foremen.

**Inverted Pendulum - Dynamic Modeling Course** **Aug - Dec 2018**

- Designed and wrote a control system for stabilizing an inverted pendulum using PID control and C++.
- Understand and identify system characteristics using first principles analysis.
- Learned basics of adaptive control through self-guided teaching to better understand control theory.

**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.
- Completed a force and stress analysis and produced 3D printed prototypes for presentation.

## 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, html/css
Mechanical Analysis:	Control Theory, Compliant Mechanisms, Kinematics, FMEA
Software:	ABAQUS, SolidWorks

## Awards and Honors

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