206-877-2618 | austin.bebee@gmail.com | linkedin.com/in/austinbebee | Newberg, OR

# **Objective**

Driven engineer with 2+ years of experience in the design, development, and analysis of novel electromechanical devices. Seeking to join a strong team dedicated toward continuously improving both technology and the team members.

### Skills

- Computer-aided-design (CAD) SolidWorks, OnShape
- Rapid prototyping
- Coding Python, Arduino, MATLAB, LabVIEW
- Material selection analysis
- Compliant mechanism design
- Circuits & sensors
- Geometric Dimensioning and Tolerancing (GD&T)
- Failure Mode and Effects Analysis (FMEA)

## **Developing:**

- Advanced SolidWorks design & analysis
- Data science & machine learning

### **Education**

M.S. Mechanical Engineering | University of Idaho, May 2020 – GPA: 4.0

**B.S. Applied Physics** | Linfield College, May 2018 – *GPA*: 3.923

Minor: Mathematics

## **Experience**

Research Assistant | AgMEQ Lab, University of Idaho (2018 – 2020)

Lead designer for a novel electromechanical device

- Fully developed a rapid measurement machine from concept using only 50% of the budget
- Integrated sensors, microcontrollers, a stepper motor, a Raspberry Pi, GUI touchscreen, aluminum frame, & 3D printed enclosures
- Derived novel math model for device's measurements
- Conducted data-driven tests for validation & design improvements
- Analyzed, visualized, & presented data for publications

### **Teaching Assistant** | University of Idaho (2018 – 2020)

Lead lab instructor for Mechanical Design Analysis course

- Trained engineering students with prototyping, troubleshooting, 3D printing, laser cutting, & product development
- Managed lab lessons to teach MATLAB, Arduino, & prototyping basics to 45 students on a semester basis

## **Achievements**

#### **Inventor**

• SOCEM (Stiffness of Crops Extrapolation Machine) | patent in process, June 2020

#### Author

 Large Deflection Analysis of Multiple, Inline Cantilever Beams Using the Pseudo-Rigid Body Model ASME, Journal of Applied Mechanics | under review, June 2020

#### **Athlete**

• Linfield College Men's Varsity Soccer | 2014 – 2018