### Sam Weston

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## **EDUCATION**

# Montana State University, Norm Asbjornson College of Engineering, Bozeman, MT

Diploma May 2022

- Bachelor of Science in Mechanical Engineering
- Minor in Mechatronics
- GPA: 3.57/4.0

### Ballard High School, Seattle, WA

Diploma 2017

- Project Lead the Way Engineering Curriculum
- GPA: 3.54/4.0 | AP Scholar with Distinction

## **EXPERIENCE**

## Bio-Inspired Dynamics Lab, Undergraduate Researcher, Bozeman, MT

September 2021 – May 2022

- Assisted with development of mathematical models of flying insects
- Worked on MATLAB code to perform parameter studies of flying insect models
- Focused primarily on the effects of wing flexibility on the power requirements for flight

# Tweedy and Popp Hardware, Entry level employee, Seattle, WA

Summer 2019

• Cashier, restocked shelves, assisted customers

### **RoboSub,** Member of Montana State RoboSub Team, *Bozeman, MT*

October 2017 – August 2018

• Performed mechanical maintenance and repairs on the AUV (autonomous underwater vehicle) leading up to and during competition

First Robotics, Member of Ballard High School Robotics Team, Seattle, WA

September 2015 – May 2017

- Team "Viking Robotics"; FRC team 2928
- Head of mechanical design for 2016-17 season
- Designed robot drive base and multiple game element manipulation mechanisms
- Volunteer and mentor for elementary and middle school robotics

## **SKILLS**

## **Mechanical Design**

- Solidworks: Coursework and projects at MSU, including producing drawings and using GD&T
- Autodesk Inventor: High school experience, in class and through robotics club
- Statics and Dynamics: Coursework, projects, and undergraduate research at MSU
- Mechanism Design: Coursework and projects at MSU, as well as high school robotics club
- FEA Software: Coursework and projects at MSU using ANSYS APDL

## **Coding**

- MATLAB: Coursework and research at MSU
- Python: Robotics programming class at MSU
- Arduino IDE: Mechatronics class and capstone project at MSU

#### **Fabrication**

- <u>CNC Machining</u>: High school experience using Autodesk Inventor HSM CAM software with benchtop CNC mills, in class and through robotics club
- Manual Machining: Machining class at MSU
- Welding: Welding class at MSU
- 3d Printing: Projects at MSU and personal/extracurricular projects