
EDUCATION

University of Hawai'i at Manoa, Honolulu, HI (3.82 GPA)
B.S. Mechanical Engineering

Aug 2022 – Dec 2026

Mountain View High School, Mountain View, CA (3.62 GPA)

Aug 2018 – June 2022

WORK EXPERIENCE

Hawai'i Institute of Geophysics & Planetology: Materials Research Assistant

October 2024 – Present

- Prepared Diamond Anvil Cell samples inside an inert atmosphere glovebox.
- Configured a CNC lab automation system based on the science Jubilee platform.
- Designed SLA 3D printed parts for Jubilee as well as other tools for the lab using SolidWorks

Makai Ocean Engineering: Engineering Intern

October 2023 – May 2024

- Designed multiple components for subsea micropile drill rig including pressure compensator system, adjustable laser guide, and micropile tapping jig.
- Worked to fabricate & assemble a variety of prototype equipment on multiple projects.
- Assisted in terrestrial systems tests for micropile drill rig.

Cyclehop LLC: Bike/Scooter Mechanic

June 2022 – August 2022

- Managed and repaired a fleet of ~50 electric bikes.
- Worked independently to organize and maintain a small warehouse.

SELECTED PROJECTS

Formula SAE - Suspension Lead (Senior Design)

August 2025 – Present

- Led a team of students and volunteers to design a suspension system for a racing vehicle.
- Programmed vehicle dynamics and tire models in Python to simulate steady state cornering and acceleration.
- Created robust, equation driven assemblies of the suspension in SolidWorks and communicated with other team members to integrate them with the chassis and drivetrain.

Stair Climbing Robot (Sophomore Design)

January 2024 – March 2024

- Worked with a 5 person team to design and build a robot to climb two flights of stairs, retrieve an egg, and return the egg to the bottom of the stairs.
- Responsible for architecting the full-system CAD model of the robot in OnShape and manufacturing laser cut and 3D printed components.
- Performed structural analysis and optimization on sandwich panel wheel design.
- Designed an elastic egg capturing device which provided a large area to pick up the egg.

Neural Network

March 2022

- Wrote a multi-layer neural network to recognize hand-written characters using Java.
- Utilized multithreading to write algorithms to handle vector operations and back propagation.
- Tested and compared different activation functions to improve speed and performance of the network.

E-Bike

February 2021

- Built a ~1.5kW hub drive electric bicycle.
- Constructed a lithium battery pack from spot welded 18650 cells.
- Wired and configured a BMS and brushless motor controller.
- Fabricated a wheel truing stand from welded steel tubing and used it to assemble the wheels.

SKILLS

CAD Modeling : SolidWorks, Fusion, OnShape, & Free CAD

Prototyping/Fabrication: 3D printing, tig/stick welding, laser cutter, waterjet, metal fabrication, some machining

Programming: Proficient in Python and MATLAB, additional experience in Java, Rust, C#, Arduino, & C; Familiar with Data Structures & OOP Principles

Miscellaneous: Technical Communications, Microsoft Word & Excel