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EDUCATION

University of Hawai'i at Manoa, Honolulu, HI (3.82 GPA) **Aug 2022 – Dec 2026**
B.S. Mechanical Engineering

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) ***https://tinyurl.com/yb8amkw9*** **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 creating the 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 ***https://tinyurl.com/2ebdxfra*** **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, metal fabrication, some machining experience

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