

An enthusiastic student of aerospace engineering and computer science at CU Boulder. Growing up, I taught myself the skills to restore sailboats and old cars, gaining hands-on experience and a deep appreciation for the mechanics behind functional design. I aim to leverage my technical skills to contribute to innovative projects and make a meaningful impact in the aerospace and technology fields.

Education:

High School

Hawai'i Preparatory Academy (2020-2022)

- Graduated in the top ten of the class with a GPA of 4.35.
- Admitted to *Cum Laude Society*.
- Awarded "Positive Divergence Award" and "Engineering Award" for academic achievements.

Undergraduate

University of Colorado Boulder (2022 – 2026)

- Majoring in Aerospace Engineering Sciences.
- Minor in Computer Science.

Skills:

Python, C++, Raspberry Pi, Linux Systems, Git, Docker, Arduino, Particle, SolidWorks, Onshape, PCB Design, Car Mechanics,

Fluent in Spanish

Projects:

- Developed a Python package that integrates with the school's dining service API, enabling seamless menu deployment across third-party applications. **(Python, API frameworks)**
- Created a 1,500+ line program to solve complex physics problems, including kinematics, energy, momentum, and projectile motion. **(TI-BASIC)**
- Built an offline Arch Linux package to efficiently browse the Arch Wiki, providing critical technical support during connectivity outages. **(Python)**
- Developed a Raspberry Pi script to process accelerometer and gyroscope data, offering real-time motion insights for ski racers. **(Python)**
- Created a physics engine simulating planetary motion, later expanding it into a game where users control rocket thrust to reach other planets. **(Python)**
- For my high school capstone, recycled a treadmill to build a compost sifting machine that converts raw compost into rich, usable soil. **(Python, wiring)**
- Developed a central control system for a walk-in freezer/fridge at Jacob Springs Farm, including hardware and software for precise temperature management. **(C++, Arduino, Python, electronics, PCB design)**
- Set up a home server running various Docker containers, with self-hosted VPN for remote Wi-Fi support, DHCP management, and other parallel services. **(Linux, Python, Docker)**
- Trained a custom instance segmentation AI model on thousands of images to integrate with an indoor rock-climbing app. **(Python, Google Colab)**
- Developed a multithreaded GUI for large inventory e-commerce sites to optimize product names and descriptions at scale using LLMs. **(Python, API frameworks)**

Experience:

UC Berkeley Artificial Intelligence Research Lab

Researcher

Berkeley, CA

June – August 2023

- Trained a team of graduate-level electrical engineering students to build and configure six powerful computers capable of training advanced neural networks.
- Worked on a team with post-graduate students researching how AI can affect the world's food production. We presented our research to the Alpha Garden team, an autonomous polyculture garden located in Berkeley, CA.

