Alec Perkins

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WORK EXPERIENCE

The Coder School Code Coach / Lead Python Camp Instructor   Jun. 2021 - Jul. 2022
The Coder School | San Mateo, CA

Responsible for tutoring children ages 8 - 16 in various back-end and front-end programming languages. Additionally responsible for leading and developing curriculum for 14-student summer coding camps.

Macrometa Resilience Team Internship   Jun. 2021 - Aug. 2021
Macrometa Corporation | San Mateo, CA

Member of the "Resilience Team" primarily writing a JSON creating and parsing program in Google's Golang aimed at creating JSON files that met clients' size requirements. Participated in meetings with global team members; from LA, India, and Bulgaria; developing skills in Golang, Python, and JSON.

IPMD, Inc. ATMA Project Internship   Dec. 2020 - Jun. 2021
IPMD, Inc. | San Mateo, CA

Contributed as an Engineering Intern with the Project ATMA team as well as a web app programmer, contributing to the creation of back-end processes in Python and front-end design. Additionally managed the EC2 (AWS) systems for the team, created an automated email server, and helped the team move to app development.

PROJECTS

Phone to Eyepiece (Microscope / Telescope) Mount with Two-Axis Linear Actuation   Apr. 2023 - Present
This project was created to assist in taking high-quality photos through a microscope or telescope eyepiece with a cellphone. The mount fastens to the eyepiece and cellphone while the x-axis and y-axis positions can be adjusted with a wireless remote to adjust either of the two stepper motor linear rail actuators in order to get the phone lens lined up perfectly with the eyepiece.

Schedule Countdown Web App   Dec. 2019 - Jun. 2020
Noticing that my High School peers had been struggling to keep track of a new pilot schedule that the school had implemented with different timed classes, breaks, and lunches on each day of the week, I created a countdown web app. It counted down the time until the next class period, passing period, lunch, the start of school, and end of school, custom-built for each day's differing schedules in JSON. The app also displays a tachometer decreasing and changing color as the current time block gets closer to ending.

Amature Balsa Wood and Estes Engine Rocket   Sep. 2019 - Jun. 2020
Constructed and machined many rocket prototypes made out of different materials and with varying wing and nose cone shape, parachute designs, body length, and composition. The final rocket prototype competed in a school contest to be judged on the height reached, the success of an auto-deploying parachute, and the integrity of the construction.

Wood and Cable Tensegrity Chair   Jan. 2022 - Jun. 2022
Designed, constructed, sanded, and tested a special kind of chair (Tensegrity Chair) that appears to be floating without support but uses illusion and static physics to balance each force of compression of a person sitting with only balanced tension in cables.

EDUCATION

The University of California, Santa Barbara | IP: Bachelor of Science, Mechanical Engineering   Expected Jun. 2026
Cumulative GPA: 3.32

SKILLS AND EXPERIENCE

CAD SolidWorks | Python | JavaScript | C++ | HTML | CSS | MATLAB | Machining | CNC | Teaching Children