

DAVID LE CHAN

www.davidlechan.dev

davidlechan@gmail.com

(650) - 383 - 8954

SKILLS

General-Purpose Programming in Python

- Pandas and NumPy for data science and database management
- Keras and Scikit-Learn for machine learning

General-Purpose Programming in C

Hardware/Logic Design in SystemVerilog

PCB Design, Assembly, and Debugging

- PCB schematics and layout in Altium and KiCAD

Mechatronics Design and Implementation

- Arduino (C++) Code Development
- 3D CAD and fabrication

Mobile App Development using React Native

Fluent in Mandarin Chinese

ACTIVITIES

Project Ignite

August 2022 - Present

Mentoring a group of high school students as a part of Project Ignite, a Carnegie Mellon club. Teaching students to integrate software code and hardware circuits to create their own drone to automatically detect humans in distress from the air using machine learning on a combination of conventional and infrared camera systems.

CIA Buggy

August 2023 - Present

Helping spotfix mechanical troubles and ensure driver safety as a mechanic for CIA's buggy team, where students build and race push-powered torpedo go-kart "buggies" during CMU's annual Spring Carnival.

Environmentally Friendly Cup-of-Noodles

August 2019 - June 2022

Explored a project to develop a self-contained, self heating and environmentally sustainable ramen noodle package. Elements included chemistry experiments for safe, cost-effective, exothermic reactions to heat the noodles and materials science to select environmentally-friendly compostable packaging. Awarded the Joey Kovacevich Innovation Fellowship, which sponsors innovative projects for social good, in Spring 2020.

EDUCATION

Carnegie Mellon University | Pittsburgh, Pennsylvania

Electrical and Computer Engineering, class of 2026

The Nueva School | San Mateo, California

2018 - 2022

EXPERIENCE

Teaching Assistant, 18-100

August 2023 - Present

Carnegie Mellon University | Pittsburgh, Pennsylvania

Leading small group lab sessions and office hours for CMU's introductory electrical computer engineering course, taught by Professors Jimmy Zhu and Tom Zajdel. Also helping to grade assignments and improve course materials (e.g. lab instructions and homework writeups).

Programming and PCB Development Intern

June 2022 - Present

Tau Motors | Redwood City, California

Helping develop, prototype, and test power electronics circuitry for Tau Motors, a startup using a combination of software simulation and hardware innovations to build more efficient wound-field electric motors. Also built an inventory management system to simplify and accelerate hardware development.

Programming Intern

June - August 2021

Vestaboard | San Francisco, California

Developed the Word-Of-The-Day "installable" (software plugin) for Vestaboard, a startup building internet-connected split-flap displays meant for cleaner and more simple messaging. Built many first time installable features, including RSS feed integration, board pagination, and progress bars.

Data Science Intern

June - August 2020

UCSF Bakar Institute | San Francisco, California

Developed pre and post-processing algorithms to augment PHilter, a program designed to remove private health information from clinical notes, making those notes more widely available to medical researchers.

English Teacher

July - August 2018

Independent Group | Taiwan

Taught English to underserved elementary school kids, particularly in rural Taiwan. Developed curriculum with an emphasis on learning engagement. Taught social-emotional learning and worked on community development.