

DAVID LE CHAN

ELECTRICAL AND COMPUTER ENGINEERING STUDENT

CONTACT

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SKILLS

General-Purpose Programming in Python

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

PCB Design and Assembly

- 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

Web Development using jQuery and PHP

Fluent in Mandarin Chinese

EDUCATION

Carnegie Mellon University

College of Engineering

Pittsburgh, Pennsylvania

August 2022 - Present

The Nueva School

San Mateo, California

August 2018 - June 2022

EXPERIENCE

Programming and PCB Development Intern

Tau Motors | Redwood City, California

June - August 2022

Developed, prototyped, and tested circuits for Tau Motors, a startup using a combination of software simulation and hardware innovations to build more efficient wound-field electric motors. Also built a software-based inventory management system to simplify and accelerate hardware development.

Programming Intern

Vestaboard | San Francisco, California

June - August 2021

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, pagination, and progress bars.

Data Science Intern

UCSF Bakar Institute | San Francisco, California

June - August 2020

Developed pre and post-processing algorithms to augment Philter, a program designed to remove personal health information from clinical notes, making those notes more widely available to medical researchers. The algorithm substituted randomized fake data into places where personally-identifying information was censored, helping to hide false negatives in plain sight and improving patient privacy.

ACTIVITIES

Carnegie Mellon Racing

August 2022 - Present

Designing and building the backplane connector circuit board as a part of Carnegie Mellon's FSAE electric race car team. Backplane integrates into the grounded low voltage subsystem, connecting vital components such as motor controllers, power distribution systems, and communication radios.

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 robotic animals, which take in analog inputs from sensors such as microphones and buttons to control animal actions.

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.

COVID-19 Children's Book

May 2020 - February 2021

Wrote and published a picture book to help parents explain to their young children the reasons why we are taking all the important measures we are to reduce the effects of the virus and the promise of the vaccines developed to immunize against COVID-19.

covidbookforkids.org