Cory Chilton

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EDUCATION

University of California, Los Angeles
B.S. in Mechanical Engineering   September 2019 - June 2023

- GPA: 4.00, Summa Cum Laude
- Technical Breadth in Computer Science

EMPLOYMENT

The Aerospace Corporation
Technical Intern (Software)   June 2022 - September 2022

- Developed scripts in Python to automate the post-flight workflow
- Enhanced Python script performance by 57% using multiprocessing
- Plotted response spectra to exhibit key differences between post-flight reports and models

Serve Robotics
Mechanical Engineering Intern   June 2021 - September 2021

- Designed and prototyped parts to go on a food delivery robot
- Tracked issues using Jira

PROJECTS

View the source code and READMEs on my github.

roundnet-player-web-app   **Informative Website**

- Built frontend using Typescript within React on the Next.js framework
- Fetched data to display from a backend API

carl-shop   **Ecommerce Website**

- Built using a React front-end on the Next.js framework
- Utilized TailwindCSS for styling with a mobile-friendly approach
- Currently working to add back-end functionality

corychilton.github.io   **Personal Website**

- Built from scratch using vanilla HTML, CSS, and Javascript

Connect-N   **Computer Game**

- Coded in C++ using objected-oriented programming
- Play against a friend or against a bot that always plays perfectly

Sorting-Visualize   **Interactive Module**

- Developed using the Pygame module in Python
- Shows how commonly used sorting algorithms sort data

juice-box-robot   **Autonomous Robot**

- Programmed in Arduino (based in C++)
- Autonomously transports a juice box through an obstacle course

COVID-Modeling   **Graphical Model**

- Coded using MATLAB
- Simulates COVID spread using a susceptible, infected, recovered model

COURSEWORK

- Object-Oriented Programming (C++)
- Data Structures (C++)
- Algorithms
- Linear Algebra
- Discrete Structures
- Electrical and Electronic Circuits

SKILLS

- Python   ●●●●●○
- HTML   ●●●●●○
- TailwindCSS   ●●●●●○
- C++   ●●●●○○
- JavaScript   ●●●●○○
- React   ●●●●○○
- CSS   ●●●●○○
- MATLAB   ●●●●○○
- TypeScript   ●●●○○○
- Next.js   ●●●○○○
- Arduino   ●●●○○○
- Git   ●●●○○○
- Jira   ●●●○○○
- Java   ●●○○○○
- LaTeX   ●●○○○○

ENGINEERING

Bruin Racing Formula SAE

- Chassis Design & Manufacturing Lead
- Designed and performed FEA analysis on a completely new chassis using SolidWorks and NX
- Integrated the chassis with adjacent subsystems

ACTIVITIES

- UCLA club spikeball president and ski team member
- Intramural soccer, volleyball, and tennis