Cory Chilton

LinkedIn | 650-339-5381 | corychilton.github.io | coryhookchilton@gmail.com | GitHub

Skills

- HTML | CSS | Python | Javascript | React | Tailwind | C++ | TypeScript | Next.js | Git | Java | Arduino | MATLAB | SOLIDWORKS | NX
- Web Development | Frontend | Computer Networking | AWS | Cloud Computing | Jest | Unit Testing | OOP | SQL | Jira | TensorFlow

Experience

Solutions Engineer, Associate — **Verkada** — *San Mateo, CA* — **11/2023 - Current**

- Developing a robust computer vision model to detect bears using **TensorFlow** in **Python.** Will integrate with live stream camera footage and the Verkada API to promptly alert patrons of nearby bears, a feature requested by numerous customers
- Earned **CompTIA Network+** certification, demonstrating my ability to troubleshoot, configure, and manage computer networks at a professional proficiency level
- Pursuing **AWS** Solutions Architect Associate certification, learning to design cost and performance optimized solutions across a wide range of services including EC2, RDS, and S3
- Communicated complex technical details of Verkada's products to a diverse clientele with varying levels of technical expertise
- Advised customers on optimal product configurations tailored to their specific environment, driving successful product sales
- Troubleshot customers' network issues to streamline product setup and enhance customer satisfaction

Technical Intern, Software — **The Aerospace Corporation** — *Los Angeles, CA* — **06/2022 - 09/2022**

- Developed **Python** scripts to process and analyze thousands of acceleration data points, in turn generating response spectra plots that were instrumental in validating mission-critical software by rigorous comparison with pre-flight rocket models
- Optimized existing **Python** scripts, reducing runtime by 57% through implementation of multiprocessing techniques, thereby mitigating bottlenecks and expediting the post-flight analysis processes
- Enhanced post-flight analyst user experience by integrating fuzzy word matching algorithms, boosting script robustness and minimizing error margins
- Debugged legacy scripts to create an updated and comprehensive post-flight report for an important rocket launch mission

Mechanical Engineering Intern — **Serve Robotics** — *Redwood City, CA* — **06/2021 - 09/2021**

- Used **Jira** to adhere to AGILE/Scrum methodologies, setting and achieving goals through iterative two week sprints
- Designed, prototyped, and tested parts for integration into a food delivery robot using **SOLIDWORKS**

Projects

- Roundnet Player: Designed the frontend of this sports statistics website, fetching data from a backend API (**Typescript, React, Next.js**)
- CARL Shop: Built the frontend of this ecommerce website with a mobile-friendly approach (**Typescript, React, Next.js, TailwindCSS**)
- Personal Website: Developed from scratch to showcase my portfolio using vanilla **HTML, CSS,** and **Javascript**
- Connect N: Coded this Connect 4 style game using **object-oriented programming** to play against a friend or a perfect bot that uses the minimax algorithm (**C++**)
- Sorting Visualize: Created this interactive module using **Python** to show how commonly used sorting algorithms sort data
- Juice Box Robot: Programmed an autonomous robot to transport a juice box through an obstacle course (**Arduino** (based in **C++**))
- COVID Modeling: Simulated the spread of COVID using a susceptible, infected, and recovered model (**MATLAB**)

Education

Bachelor of Science — **University of California, Los Angeles** — **09/2019 - 06/2023**

- Major in Mechanical Engineering with a technical breadth in Computer Science
- **GPA: 4.00**, Summa Cum Laude
- Coursework: Object-Oriented Programming (**C++**), Data Structures (**C++**), Algorithms, Linear Algebra, Discrete Structures, Circuits

Engineering

Chassis Design & Manufacturing Lead — **Bruin Racing Formula SAE** — *Los Angeles, CA* — **09/2019 - 07/2022**

- Designed and conducted finite element analysis (FEA) on a brand new chassis design, maximizing torsional stiffness while minimizing weight, resulting in a fast car that was performant while cornering (**SOLIDWORKS, NX**)
- Collaborated with subsystem leads to integrate their components onto the chassis, navigating compromises to achieve the team's objective of maximal vehicle performance
- Through my dedicated efforts alongside the team's collective work, we placed 5th out of the 48 teams competing at the national collegiate level, a substantial improvement from our prior best performance of 47th out of 76 teams