Charles Zhu

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Education

University of California, Los Angeles (UCLA) **Expected Graduation: June 2026**

GPA: *3.94 (Dean's Honors)* | *B.S. in Computer Science* *Los Angeles, CA*

- **Activities**: ACM Dev Team, Association of Chinese Americans
- **Relevant Coursework**: Data Structures, Computer Organization, Algorithms and Complexity, Multivariable Calculus, Linear Algebra, Discrete Mathematics

Monta Vista High School **August 2018 – June 2022**

GPA: *4.0*, ***SAT:*** *1530* *Cupertino, CA*

Experience

Native English Institute **July 2023 – August 2023**

SWE Intern *Kobe, Japan*

- Built automated scheduler to match 100+ student appointments with 30+ teachers per day based on several criteria
- Improved teacher workflow design to optimize teacher rankings and integrated logic into algorithm
- Conducted regular tests using Docker and Kubernetes to ensure algorithm accuracy and reliability

ACM Dev Team **November 2022 – Present**

Officer *Los Angeles, CA*

- Developed site template with HTML/SCSS/React used by ACM committees and viewed by thousands of students
- Designed template to be easily customizable by fetching individual committee data from spreadsheets using TypeScript
- Collaborated with group members to divide workload by components and consistently reviewed code quality

Pioneer Academics **June 2021 – September 2021**

Research Intern *Cupertino, CA*

- Completed research project using Python under Professor Sebastiaan Joosten from Dartmouth College to find most effective chess openings for different ratings using Stockfish engine and Lichess database
- Represented opening moves with custom tree data structure to optimize position evaluation times
- Authored 20-page research paper demonstrating findings

Aspiring Scholars Directed Research Program (ASDRP) **June 2021 – August 2021**

Research Intern *Cupertino, CA*

- Performed time-series analysis with Python under mentorship of Samuel Fendell to evaluate effectiveness of Twitter sentiment at predicting stock prices
- Pre-processed and analyzed datasets from 2015 to 2020 containing 13 million S&P 500 stock prices and 2 million tweets concerning NASDAQ companies
- Measured series correlation and model prediction accuracy using diverse statistical methods

Projects

Personal Website | *HTML/CSS, React* **July 2022 - August 2022**

- Created dynamic personal website using React.js and several React libraries for animation and effects

Interact Tutors | *HTML/CSS, JavaScript, Flask, SQL* **August 2020 - July 2022**

- Designed, developed, and deployed a full-stack tutoring website to connect high school tutors with younger students
- Implemented relational database using MySQL to store information about tutors, tutees, and tutoring sessions
- Automated application process and streamlined tutee requests
- 30+ tutors and 350+ total hours tutored

Terrain Classification Neural Network | *Python* **June 2020 - July 2020**

- Trained a neural network to classify images on terrain and suitability for driving at the UCSB Summer Research Academies
- Compared model accuracy with several prominent pre-trained models
- Co-authored research paper and presented findings at capstone seminar

Relevant Skills

Languages: Python, Java, C, C++, HTML/CSS/SCSS, JavaScript, TypeScript, SQL, Assembly
Technologies/Frameworks: GitHub, Bootstrap, Flask, React, MySQL, Node.js, Docker, Kubernetes, PyTorch, scikit-learn
Spoken Languages: English (native), Chinese (fluent)