

Charles Zhu

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Education

University of California, Los Angeles

Bachelor of Science in Computer Science

Expected Graduation: June 2026

Los Angeles, CA

Monta Vista High School

Cumulative GPA: 4.0

August 2018 – June 2022

Cupertino, CA

Experience

Pioneer Academics

June 2021 – September 2021

Research Intern

Cupertino, CA

- Completed a research project 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 multiple data structures and optimized 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 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 S&P 500 stock prices and tweets concerning NASDAQ companies
- Measured series correlation and model prediction accuracy using various statistical methods

Bay Area Tutoring Association

September 2020 – February 2021

Volunteer Tutor

Cupertino, CA

- Introduced 30+ students to web development (HTML/CSS) and Python through code.org exercises
- Led students in developing personal creative projects during one-on-one sessions
- Coordinated with other tutors to organize lesson plans over several weekly sessions

Projects

Personal Website | *HTML/CSS, React*

July 2022 - August 2022

- Created 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 handled tutee requests
- 30+ tutors and 350+ total hours tutored
- interacttutors.com

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 popular pre-trained models
- Co-authored a research paper and presented findings at capstone seminar

Technical Skills

Languages: Python, Java, HTML/CSS, JavaScript, SQL

Technologies/Frameworks: GitHub, Bootstrap, Flask, React, PyTorch, scikit-learn, NumPy, Pandas, Matplotlib, Seaborn

Spoken Languages: English (native), Chinese (fluent)