

Elaine Chao

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Education

University of California, San Diego

expected Dec 2024

Bachelor of Science in Computer Science, Minor in Linguistics

GPA: 3.86/4.00

Relevant Coursework: Operating Systems, Digital Circuit Design, Algorithms, Software Engineering

Experience

Tutor, UC San Diego – La Jolla, CA

2024 – Present

- Instructional assistant for Software Engineering, Algorithms, and Computer Security courses
- Held weekly office hours and lab hours for classes of up to 400 students, reviewing and answering their questions about software engineering concepts
- Designed and graded 30+ hours of lab material for the students
- Prepared students to successfully complete multiple iteration long team projects in Android Studio and JavaScript using Agile practices

Extracurricular Activities

Triton Solar Car | Auxiliary Lead

2021 – Present

- Designed the CAN bus system with CAN FD protocol for the solar car, allowing the team to collect and analyze data while battery, motor and solar array systems are active
- Led a team of 4 in implementing the design using Arduino and ESP32 modules
- Onboarded new members in the relevant technologies, assigned tasks and held weekly meetings
- Collaborated members of other subteams to interface between systems in the car

TritonHacks | Starter Kit Lead, Website Developer

2021 – 2023

- Led a team of 3 in designing an Alice-based hackathon starter kit for high school participants at the beginner level
- Maintained the React website

Projects

Raytracer

github.com/elaine-ch/raytracer

- Built a Whitted recursive ray tracer in C++
- Created diffuse and specular lighting effects using the Lambert and Blinn-Phong shading models

Social Compass Android App

github.com/elaine-ch/Social-Compass

- Used Agile development methods to coordinate with a team of six and deliver the product by the deadline, despite unclear instructions and changing requirements for the app
- Implemented HTTP protocol and MVP architecture concepts to communicate with a remote server and display user location data in real time
- Wrote Java unit tests and performed end-to-end testing with Robolectric and Espresso in Android Studio

Skills

Languages: Java, C++, JavaScript, SystemVerilog

Frameworks: React, Node.js

Tools: Git, Android Studio, Fusion360