

Aden Jo

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EDUCATION

University of California, Santa Barbara

B.S. in Computer Engineering

Santa Barbara, CA

September 2022 - Dec 2026

- Relevant Coursework: Web Application Development, Data Structures and Algorithms, Object-Oriented Programming, Operating Systems, Computer Architecture, Databases, Networks, Digital Design, Embedded Systems, Machine Learning.

TECHNICAL SKILLS

Languages and Scripting Languages: Python, C, C++, C, Java, JavaScript, HTML5, CSS, SQL.

Frameworks and Libraries: React, FastAPI, Spring Boot, Next.js, Vercel, Heroku, Polars DataFrames.

Tools: Git, GitHub, Unix, GitHub Actions, Storybook, Chromatic, JaCoCo, PIT Mutation Testing, Google Cloud.

EXPERIENCE

Scale AI

Prompt Engineer (Contractor)

San Jose, CA

June 2024 - July 2024

- Crafted over 50 coding-related text prompts, developed functional and efficient Python code to address each prompt, and designed robust test cases to ensure code performance and reliability.
- Reviewed and assessed colleagues' work quality, providing revisions to enhance accuracy and effectiveness.

Arch Lab

Software Engineer

Santa Barbara, CA

September 2023 - June 2024

- Enhanced the performance of Sootty—a command-line utility for VCD waveform visualization—by transitioning its data management from sorted dictionaries to the Polars DataFrame library.
- Reduced the runtime of small commands by approximately 70%, improving the data visualization response time.

Target

Tech Consultant

San Jose, CA

June 2022 - August 2022

- Delivered comprehensive technical support for Target electronics. Enhanced customer satisfaction by translating technical solutions into user-friendly explanations.
- Fostered cross-departmental collaboration through clear and effective communication, streamlining inventory and drive-up order processes to support seamless store operations.

Cosmos UCSD

Software and Hardware Engineer

La Jolla, CA

June 2021 - July 2021

- Developed EZCharge, a robotic wireless charging system, using Raspberry Pi, Python, GPIO, and PWM libraries. Designed and implemented color detection algorithms and servo-controlled mechanisms for precise autonomous device placement.
- Built four specialized robots for team competitions, applying lecture concepts such as Finite State Machines, image processing with OpenCV and NumPy, and video filtering techniques.

PROJECTS

Happy Cows

Full Stack Web App Development

- Enhanced a web application used by 90+ UCSB Environmental Chemistry students in CHEM 123 to simulate the 'Tragedy of the Commons' concept, utilizing React and Spring Boot. Implemented scalable backend CRUD operations and designed an intuitive frontend with form fixtures, table components, and dynamic pages for editing, indexing, and creating course-related functionalities.

Course Schedule Image to Calendar

Full Stack Web App Development

- Developed a full-stack Course Schedule-to-Calendar application using React and FastAPI, enabling users to upload course schedule images, convert them to JSON via OpenAI's GPT-4 Vision API, and seamlessly generate ICS files for calendar integration.

Database-Driven Student Information System

Oracle DB, Java, JDBC

- Designed and implemented a normalized Oracle database schema to manage students, courses, enrollments, grades, majors, and prerequisites.
- Automated grade imports from JSON using Java I/O, JDBC batch updates, and server-side JSON parsing.
- Integrated user authentication with SHA-256 PIN hashing and role-based access, ensuring student-only access to personal data and restricted staff privileges.