Austin Quach

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Education

University of California, Santa Barbara June 2026
B.S. Computer Engineering 3.7 GPA

Experience

Amazon June 2025 - September 2025
Software Development Engineer Intern San Francisco, CA

- Architected a serverless Java microservice using AWS to replace a manual ticketing process, slashing retrieval latency for machine learning data from days to milliseconds.
- Implemented a data ingestion pipeline where S3 object creation triggers a Lambda via SQS to automatically parse, validate, and upload data to DynamoDB, routing failed records to a DLQ for robust error handling.
- Developed a dynamic React display panel that consumed internal REST APIs, enabling users to request data from the microservice and view key information aggregated from multiple backend sources in a single, accessible display.
- Drove the full DevOps lifecycle from architectural design to deployment, utilizing CI/CD framework to streamline integration, testing, and monitoring, while collaborating closely with UI/UX and backend teams.

SoCalGas July 2024 - June 2025
Engineering Intern Los Angeles, CA

- Developed Python scripts to identify and flag errors in the company's reports, technician logs, and spreadsheets to streamline data integrity checks, increasing accuracy and saving 10+ hours of manual work per week.
- Conducted trend analysis on gas leak information using Excel and SQL, culminating in a presentation to management that included the discovery of a key formula error which was costing the company $5,000/year.
- Served as a data quality specialist for the financial reporting team, uncovering and rectifying critical spreadsheet errors that averted potential discrepancies in the hundreds of thousands of dollars.

Projects

UCSB Course Search Website Spring 2025

- Built upon legacy full-stack web application using React, Spring Boot, and PostgreSQL to enable UCSB students to manage course schedules with OAuth and UCSB API integration
- Implemented comprehensive unit, mutation, and integration tests with JUnit, Stryker, and Jacoco frameworks to maintain high code quality and coverage.
- Collaborated in an Agile team of 6 using sprint planning, code reviews, and daily standups to coordinate development efforts and ensure continuous integration across a shared codebase.

BookSwap App Winter 2025

- Developed a cross-platform mobile application using React Native and Expo, creating a functional marketplace for UCSB students to buy/sell textbooks locally.
- Implemented a scalable backend using Firestore for real-time storage of book listings and transaction data and Firebase for authentication and secure user management.

Embedded Chromatic Tuner Fall 2024

- Developed an embedded chromatic tuner using C on a Nexys A7-100T FPGA board to accurately detect musical note frequencies from 80 to 4,200 Hz.
- Engineered low-latency software using efficient state machines, interrupt handling, and optimized Fast Fourier Transform (FFT) techniques to enable real-time audio signal processing.
- Designed a complex embedded system interfacing multiple peripherals including a microphone, LCD display, and rotary encoder with an intuitive user interface.

Skills

Languages: Python, C, C++, Java, Javascript, Typescript, HTML, CSS, SQL
Frameworks and Tools: AWS, Agile, Algorithms, Data Structures, Embedded FPGA Development, Firebase, Git, Jacoco, JUnit, Microsoft 365 Suite, Object-Oriented Programming, React, Spring Boot