

Brooke Mattos

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EDUCATION

University of California, Santa Cruz

Computer Science B.S.

Expected Graduation: June 2026

GPA: 3.8

Relevant Coursework: Full Stack Web Development, Database Systems, Distributed Systems, Computer Networks, Computer Systems, Machine Learning, Artificial Intelligence, Technical Writing, Data Structures & Algorithms

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, C, C++, C#, HTML/CSS, SQL, Bash

Frameworks: React, Angular, Next, Node, Express, Jest

Technologies: Git, Unix, Linux, Vim, Unity, REST, APIs, AWS, Postgres, Firebase, Docker, DynamoDB

Tools: GitLab, Jira, Figma, Confluence, Postman, Swagger, LaTeX, Excel, Agile/Scrum

EXPERIENCE

Software Engineer | Crusoe

Incoming June 2026

- Incoming new grad software engineer, building a new cloud infrastructure from the ground up, working at the forefront of distributed system technologies.
- Collaborating with other engineers to build and maintain scalable and highly available fault-tolerant distributed systems at scale, build products and tools from the ground up, used by global clients.
- Triage bugs and solve issues in production, and work with product owners and other stakeholders to iterate on new features.

Software Engineering Intern | Second Dinner

June 2025 - September 2025

- Contributed to backend development on **Marvel SNAP**, a market-leading PC & mobile card game with **30M+ downloads**, ensuring stability and efficiency in a live-service environment.
- Built and optimized in-game systems in C# and Unity, leveraging AWS Lambda & various SaaS tools, enhancing analytics, improving player experience, and reducing crash-rates by **25%** via memory profiling.
- Collaborated with a **30-person** cross-functional team on the design and development of a new game-mode infrastructure and new mode from scratch, improving code re-usability, optimizing overhead, and facilitating improved player engagement & spend, with a projected **7% uplift** in retention between event cycles.
- Developed automation pipelines with GitHub Actions and various REST APIs, leveraging Slack APIs to accelerate communication and development turnaround, while reducing live-server hotfix latency + surface area, and improving our CI/CD pipelines.

Lead Full Stack Developer | Tech4Good Lab

January 2025 - Current

- Develop & maintain full stack Angular web applications with Firebase to support large-scale, AI-driven social impact and education research initiatives.
- Core developer on Causeway, an educational programming platform with **200+ users**, collaborating with researchers and engineers in agile scrums to manage issues and deliver critical features efficiently.
- Lead across our skill-building web dev teams, mentoring **15+ developers** a quarter in our tech stack, serving as a group tutor for the course, while driving code reviews, technical guidance, and sustainable workflows.

PROJECTS

GuitarBase | [demo](#) | [link](#) | *JavaScript, React, Firebase, HTML, CSS*

June 2024 - Current

- Develop a full-stack web application for guitar players, featuring a playable fretboard, a personalized learning & song tracking system, accompanied with a range of other critical tools.
- Employs Firebase authentication and databases for user-specific data storage, enabling seamless management of personal libraries, user preferences, and learning progression.

Multi-Threaded HTTP Server | *C, Linux*

April 2024

- Constructed a highly concurrent, multi-threaded HTTP server utilizing POSIX threads for synchronization, optimizing request handling and resource allocation.
- Implemented advanced concurrency control mechanisms, ensuring thread safety and minimizing race conditions, improving server efficiency under high load.