Charles Alders

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GitHub

CS&E graduate student at UC Santa Cruz. Self-motivated learner and Software Engineer. Experience in database systems, development operations, RESTful API development, and software/database testing. Passionate about all things data and technology.

Skills

Python, JavaScript/TypeScript, C++, Java, bash/zsh, Linux (Debian/NixOS), Git/GitHub, Docker, Flask, Cypher Query Language, Graph Databases, Web Development, SQL, Jenkins

Education

Master of Science (M.S.) - Computer Science & Engineering
University of California, Santa Cruz - Santa Cruz, CA
Sep 2024 - Dec 2025 (Expected)

Bachelor of Science (B.S.) - Business Administration
Regis University - Denver, CO
Aug 2018 - Dec 2022
Specialization in Project Management
Dean's List — Graduated Magna Cum Laude — 3.93 GPA

Experience

Software Engineer Intern
Archon.gg - Remote (Contract)
Jan 2025 - Present

Teaching Assistant
University of California, Santa Cruz - Santa Cruz, CA
Jan 2025 - Mar 2025

- CSE111 - Advanced Programming (C++) - Winter 2025

    - Guided 50+ undergraduate students through a quarter-long C++ group project.

    - Performed code reviews with groups of 4-6 students, giving feedback on code quality.

    - Held office hours and section twice per week, assisting students with learning core concepts and debugging C++ code.

    - Graded the majority of C++ programming homework assignments throughout the course.

Software Engineer
X5E, Inc. - Remote (Contract)
Apr 2023 - Jan 2025

- Primarily focused on the development of open source distributed DBMS based on Conflict-Free Replicated Data Types, with TypeScript and Python implementations.

- Implemented additional data stores, data structures, integration tests, unit tests, and database performance tests in both Python and TypeScript.

- Oversaw all development operations by utilizing GitHub actions, Docker, and Jenkins to automate builds and tests across multiple operating systems and architectures.

- Automated package publishing and documentation generation utilizing language specific tools (e.g., readthedocs).

- Created and optimized algorithms for data retrieval, creation, and synchronization.