

# 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

### SDE Intern

Amazon - Bellevue, WA  
Jun 2025 - Present  
AWS Keyspaces - Data Storage, Access, and Management Team

### Teaching Assistant

University of California, Santa Cruz - Santa Cruz, CA  
Jan 2025 - Jun 2025

- CSE123B - Engineering Design Project II - Spring 2025
  - Guided five groups of 4-6 students through the second quarter of a two-quarter long engineering project.
  - Assisted groups with cloud infrastructure and web application setup for prototype IoT devices.
  - Held weekly meetings to discuss progress, goals, and blockers.
  - Provided feedback on presentations, design documents, and prototype demonstrations.
- 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 Intern**

Archon.gg - Remote (Contract)

Jan 2025 - May 2025

**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.