# MASON BOTT

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### EDUCATION

## University of Colorado Boulder

Bachelor of Arts in Computer Science, Minor in Mathematics

GPA: 3.96, Dean's List for 4 semesters

Clubs: Competitive programming, server development, cyber security

Courses: Computer systems, algorithms, data structures, database systems, data science, software development methods and tools, calculus 1 & 2, discrete math, linear algebra

#### EXPERIENCE

#### Free Food Market Volunteer

SECORCares

- · Cultivated a better local community by conducting analysis and optimizations to determine and execute the most efficient method for assembling care packages.
- Helped 100+ individuals gain access to food while working collaboratively to achieve success after basic training.

### PROJECTS

### **Rush:** A rudimentary shell | *Rust, Cargo*

- Created functionality to run processes and view their respective state.
- Used the Unix philosophy, including the use fork and process execution system calls.

### Sedmos: An advanced graphing calculator | TypeScript, Svelte

- Developed algorithms for rendering mathematical functions on an interactive canvas, involving coordinate system transformations and custom event handlers for dynamic graph updates.
- Implemented complex UI scenarios for infinite function plotting and seamless user interactions using TypeScript and the Svelte framework, ensuring optimal performance and responsive design.

ExpenseShare: A practical finance application | ExpressJS, Handlebars, PostgreSQL, NodeJS, Docker

- Applied Agile methodology in a collaboration with peer developers. Employed effective communication and deadline success.
- Implemented server-side logic using ExpressJS, effectively handling application endpoints and processing client requests for seamless front-end and back-end communication.
- Optimized database schema design and implemented robust authorization mechanisms, facilitating secure and efficient CRUD operations on a PostgreSQL database.

### **Quantumchart** | JavaScript, HTML, CSS, TypeScript, Svelte

 Designed and implemented a creative UI that meets industry standards for accessibility and functionality. Went above and beyond with visuals and overall design.

### HONORS AND AWARDS

Awards: Dean's List for 4 semesters. Life Scout Scholarships: Hale esteemed scholarship Competitions: 2nd place winner at HackCU 2024

### **TECHNICAL SKILLS**

Languages: C++, x86-64 AT&T assembly, Lua, Rust, Python, JavaScript, TypeScript, SQL, Nix Developer Tools: Git, Docker, AWS, VS Code, Vim, GDB, Linux, Direnv, Regex, Neovim, Linux Frameworks and libraries: Svelte, SvelteKit, ExpressJS, handlebars, PostgreSQL, Pandas, NumPy Industry skills: Agile, Scrum (sprints), Leadership

Aug 2022 - May 2026 Boulder, CO

Dec 2021 - May 2022

Parker, CO