

Education

B.S. Computer Science ▪ University of Utah

expected 2027

Skills

Proficient

Dart, JS, CSS, SVG, HTML, Java, Python, TS, Typst, GitHub Actions, Zig

Familiar

Angular, Bash, C, C#, Cordova, C++, CISC, CircleCi, Flutter, Metal, MongoDB, MIPS asm, OpenCL, PHP, Ruby, Rust, Swift, WASM (WAT)

Experience

Research Assistant ▪ University of Utah

Benchmarking gradual typing in Meta's Cinder variant of python

2025–

Teaching Assistant ▪ University of Utah

Leading labs, grading, assisting students for COMP 1020

2025–

Software Engineer/Dev ops ▪ Stutor Inc.

Architected automation pipeline

2023–2024

Optimized DB indexes, reducing query times by up to 8x

Web Developer/Dev Ops ▪ Jerran Software Solutions

Overhauled LDS MTC QA/CICD workflow, substantially reducing regression burden

2022–2023

Rewrote Embark app startup to reduce first time loading by up to 50%

Research Assistant Intern ▪ Earl Keefe PhD

Visualizations for anthropology research

2020–2021

Web Dev. Intern ▪ Frelia

Web scraping SNPedia for AI training

2019

Projects

Optimized bead/gravity sort ▪ zig

Bead sort via popcount intrinsics and bit matrix transpositions for 32 u5s

2026

Tiny nkey rollover tester OS ▪ zig

Ported as OS class assignment to zig, demo of keyboard in and vga out

2025

Fast approximate change of base ▪ python

Novel algorithm for printing numbers larger than 10<sup>105</sup> efficiently

2025

Automated resume ▪ typst

Automated typst resume deployed to website

2025

Held-karp ▪ zig

Well optimized Held-karp TSP algorithm using bitsets and Gosper's hack

2025

Spreadsheet formulas to DLL compiler ▪ c

Compiles formulas in a spreadsheet into a DLL

2025

Color alchemy ▪ qt c++

Beautiful game for learning color mixing, properly using oklab color space

2024

CSS grid examples ▪ css html

Reference for common design patterns that should be implemented with css grid

2024

Randomized Pacman game ▪ java

Pacman game using some algorithms from my 2420 class: A\*, DFS, BFS, Union find

2021

Misc

Contributed code field to instruction decoding ▪ MARS IDE

2025

#12 Ranked team at Rocky Mountain Regional Contest ▪ ICPC

2025

Jane Street Leaderboard

Number Cross 5

Sum One, Somewhere