

Education

B.S. Computer Science (in progress) <i>University of Utah</i>	2022 - 2027 <i>expected</i>
A.S. Computer Science (incomplete) <i>Salt Lake Community College</i>	2019 - 2022 <i>transferred</i>

Technology

Expert <ul style="list-style-type: none">• Zig, Dart, JS, WASM (WAT), CSS, SVG, GitHub Actions, MIPS asm
Proficient <ul style="list-style-type: none">• Angular, C, C#, Cordova, Flutter, HTML, Java, Python, TS, Typst
Familiar <ul style="list-style-type: none">• Bash, C++, CICD, CircleCi, Laravel, Metal, MongoDB, OpenCL, PHP, Ruby, Rust, Swift

Experience

Research Assistant <i>University of Utah</i> <ul style="list-style-type: none">• Benchmarking gradual typing in Meta’s Cinder variant of python	Nov 2025 - present
Teaching Assistant <i>University of Utah</i> <ul style="list-style-type: none">• Leading labs, grading, assisting students for COMP 1020	Apr 2025 - present
Software Engineer/Dev ops <i>Stutor Inc.</i> <ul style="list-style-type: none">• Architected CICD pipeline• Optimized DB indexes, reducing query times by up to 8x	Sep 2023 - Apr 2024
Web Developer/Dev Ops <i>Jerran Software Solutions</i> <ul style="list-style-type: none">• Overhauled LDS MTC QA/CICD workflow, substantially reducing regression burden• Rewrote Embark app startup to reduce first time loading by up to 50%	Apr 2022 - Sep 2023
Research Assistant Intern <i>Earl Keefe PhD</i> <ul style="list-style-type: none">• Visualizations for anthropology research	Nov 2020 - Jun 2021
Web Dev. Intern <i>Frelji</i> <ul style="list-style-type: none">• Web scraping SNPedia for AI training	May 2019 - Sep 2019

Projects

Optimized bead/gravity sort zig ↗ <ul style="list-style-type: none">• Bead sort done via popcount intrinsics and bit matrix transpositions. Only for 32 u5s	2026
Tiny nkey rollover tester OS zig ↗ <ul style="list-style-type: none">• Ported as OS class assignment to zig and then added keyboard input and vga output	2025
Fast approximate change of base python ↗ <ul style="list-style-type: none">• Novel algorithm for printing numbers larger than 10¹⁰ efficiently	2025
Automated resume typst ↗ <ul style="list-style-type: none">• CICD typst resume	2025
Held-karp zig ↗ <ul style="list-style-type: none">• Well optimized bitset based Held-karp TSP algorithm	2025
Spreadsheet formulas to DLL compiler c ↗ <ul style="list-style-type: none">• A spreadsheet which compiles formulas to a DLL which can be used in DOTNET projects	2025
Color alchemy qt c++ ↗ <ul style="list-style-type: none">• A game for learning color mixing	2024
CSS grid examples css html ↗ <ul style="list-style-type: none">• Examples of common design patterns implemented with css grid as a good reference	2024
Randomized Pacman game java ↗ <ul style="list-style-type: none">• Pacman game using some algorithms from my 2420 class: A*, DFS, BFS, Union find	2021

Misc

Added code field to instruction decoder MARS IDE ↗	2025
#12 Ranked team at Rocky Mountain Regional Contest ICPC ↗	2025
Jane Street Leaderboard <ul style="list-style-type: none">• Number Cross 5 ↗• Sum One, Somewhere ↗	May 2025 Apr 2025