

Education	B.S. Computer Science University of Utah	2022 - 2027 <i>expected</i>
	A.S. Computer Science (incomplete) SLCC	2019 - 2022 <i>transferred</i>

Technology	Comfortable Languages	
	<ul style="list-style-type: none">Python, C, Zig, Dart, JS, TS, WASM (WAT), Java, C#	
	Familiar Languages	
	<ul style="list-style-type: none">Ruby, C++, Rust, Swift, Metal, OpenCL, Typst, F#, x86 assembly, MIPS assembly, PHP, Bash	
	Misc	
	<ul style="list-style-type: none">Flutter, Angular, Laravel, cicd/github actions/circleCi, css, html/svg, mongoDB, Cordova	

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

Projects	Optimized bead/gravity sort zig	2026
	<ul style="list-style-type: none">Bead sort done via popcount intrinsics and bit matrix transpositions. Only for 32 u5s	
	Tiny nkey rollover tester OS zig	2025
	<ul style="list-style-type: none">Ported as OS class assignment to zig and then added keyboard input and vga output	
	Fast approximate change of base python	2025
	<ul style="list-style-type: none">Novel algorithm for printing numbers larger than 10^{10^5} efficiently	
	Automated resume typst	2025
	<ul style="list-style-type: none">CICD typst resume	
	Held-karp zig	2025
	<ul style="list-style-type: none">Well optimized bitset based Held-karp TSP algorithm	
	Spreadsheet formulas to DLL compiler c	2025
	<ul style="list-style-type: none">A spreadsheet which compiles formulas to a DLL which can be used in DOTNET projects	
	Color alchemy qt c++	2024
	<ul style="list-style-type: none">A game for learning color mixing	
	CSS grid examples css html	2024
	<ul style="list-style-type: none">Examples of common design patterns implemented with css grid as a good reference	
	Randomized Pacman game java	2021
	<ul style="list-style-type: none">Pacman game using some algorithms from my 2420 class: A*, DFS, BFS, Union find	

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 5Sum One, Somewhere	May 2025 Apr 2025