

Education	B.S. Computer Science ▪ University of Utah	expected may 2027
Skills	Proficient	
	Dart, JS, CSS, SVG, HTML, Java, Python, TS, Typst, GitHub Actions, Zig	
	Familiar	
	Angular, Bash, C, C#, Cordova, C++, CI/CD, CircleCI, Flutter, Metal, MongoDB, MIPS	
	ASM, OpenCL, PHP, Ruby, Rust, Swift, WASM (WAT)	
Experience	Research Assistant ▪ University of Utah	oct 2025 -
	Benchmarking gradual typing in Meta's Cinder variant of Python	
	Teaching Assistant ▪ University of Utah	sep 2025 -
	Leading labs, grading, assisting students in COMP 1020	
	Software Engineer/DevOps ▪ Stutor Inc.	sep 2023 - apr 2024
	Architected automation pipeline	
	Optimized DB indexes, reducing query times by up to 8x	
	Web Developer/DevOps ▪ Jerran Software Solutions	apr 2022 - sep 2023
	Overhauled LDS MTC QA/CICD workflow, substantially reducing regression burden	
	Rewrote Embark app startup to reduce first-time loading by up to 50%	
	Research Assistant Intern ▪ Earl Keefe PhD	nov 2020 - jun 2021
	Visualizations for anthropology research	
	Web Development Intern ▪ Frelii	may 2019 - sep 2019
	Web scraping SNPedia for AI training	
Projects	English language trie ▪ zig wasm ↗	2026
	Dictionary of 236k words embedded into a 4 MB wasm trie for easy autocomplete	
	VS Code typst extension ▪ rust ts ↗	2026
	Extension for typst development that works on the web version of VS Code	
	Lambda calculus beta reduction visualizer ▪ js html ↗	2026
	Trace argument through function application with useful highlighting	
	Optimized bead/gravity sort ▪ zig ↗	2026
	Bead sort via popcount intrinsics and bit matrix transpositions for 32 u5 integers	
	Tiny nkey rollover tester OS ▪ zig ↗	2025
	Ported as OS class assignment to zig, demo of keyboard in and vga out	
	Fast approximate change of base ▪ python ↗	2025
	Novel algorithm for printing numbers larger than 10 <sup>10</sup> <sup>5</sup> efficiently	
	Automated resume ▪ typst ↗	2025
	Automated typst resume deployed to website	
	Held-Karp ▪ zig ↗	2025
	Well optimized Held-Karp TSP algorithm using bitsets and Gosper's hack	
	Spreadsheet formulas to DLL compiler ▪ c ↗	2025
	Compiles formulas in a spreadsheet into a DLL	
	Color alchemy ▪ qt c++ ↗	2024
	Beautiful game for learning color mixing, properly using oklab color space	
	CSS grid examples ▪ css html ↗	2024
	Reference for common design patterns that should be implemented with css grid	
	Randomized Pacman game ▪ java ↗	2021
	Pacman game using some algorithms from my 2420 class: A*, DFS, BFS, Union find	
	Svg Animator ▪ html js css ↗	2019
	Svg animator inspired by ms paint	
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 ↗	