

Robert Morelli

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Education	B.S. Computer Science (in progress) • University of Utah	2022 – 2027 expected
	A.S. Computer Science (incomplete) • SLCC	2019 – 2022 transferred

Technology	Expert
	Zig, Dart, JS, WASM (WAT), CSS, SVG, GitHub Actions, MIPS asm
	Proficient
	Angular, C, C#, Cordova, Flutter, HTML, Java, Python, TS, Typst
	Familiar
	Bash, C++, CICD, CircleCi, Metal, MongoDB, OpenCL, PHP, Ruby, Rust, Swift


Experience	Research Assistant • University of Utah	Nov 2025 – present
	Benchmarking gradual typing in Meta's Cinder variant of python	
	Teaching Assistant • University of Utah	Sep 2025 – present
	Leading labs, grading, assisting students for COMP 1020	
	Software Engineer/Dev ops • Stutor Inc.	Sep 2023 – Apr 2024
	Architected CICD pipeline	
	Optimized DB indexes, reducing query times by up to 8x	
	Web Developer/Dev Ops • 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 Dev. Intern • Frelia	May 2019 – Sep 2019
	Web scraping SNPedia for AI training	

Projects	Optimized bead/gravity sort • zig 🔗	2026
	Bead sort done via popcount intrinsics and bit matrix transpositions. Only for 32 u5s	
	Tiny nkey rollover tester OS • zig 🔗	2025
	Ported as OS class assignment to zig and then added keyboard input and vga output	
	Fast approximate change of base • python 🔗	2025
	Novel algorithm for printing numbers larger than 10^{10^5} efficiently	
	Automated resume • typst 🔗	2025
	Automated typst resume deployed to website	
	Held-karp • zig 🔗	2025
	Well optimized bitset based Held-karp TSP algorithm	
	Spreadsheet formulas to DLL compiler • c 🔗	2025
	A spreadsheet which compiles formulas to a DLL which can be used in DOTNET projects	
	Color alchemy • qt c++ 🔗	2024
	A game for learning color mixing	
	CSS grid examples • css html 🔗	2024
	Examples of common design patterns implemented with css grid as a good reference	
	Randomized Pacman game • java 🔗	2021
	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	

Number Cross 5 

May 2025

Sum One, Somewhere 

Apr 2025