

# ROBERT MORELLI

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EDUCATION	B.S. Computer Science (in progress) ▶ University of Utah A.S. Computer Science (incomplete) ▶ SLCC	2022 - 2027 <i>expected</i> 2019 - 2022 <i>transferred</i>
TECHNOLOGY	<b>Expert</b> Zig, Dart, JS, WASM (WAT), CSS, SVG, GitHub Actions, MIPS asm <b>Proficient</b> Angular, C, C#, Cordova, Flutter, HTML, Java, Python, TS, Typst <b>Familiar</b> Bash, C++, CICD, CircleCi, Metal, MongoDB, OpenCL, PHP, Ruby, Rust, Swift	
EXPERIENCE	<b>Research Assistant</b> ▶ University of Utah Benchmarking gradual typing in Meta's Cinder variant of python <b>Teaching Assistant</b> ▶ University of Utah Leading labs, grading, assisting students for COMP 1020 <b>Software Engineer/Dev ops</b> ▶ Stutor Inc. Architected CICD pipeline Optimized DB indexes, reducing query times by up to 8x <b>Web Developer/Dev Ops</b> ▶ Jerran Software Solutions Overhauled LDS MTC QA/CICD workflow, substantially reducing regression burden Rewrote Embark app startup to reduce first time loading by up to 50% <b>Research Assistant Intern</b> ▶ Earl Keefe PhD Visualizations for anthropology research <b>Web Dev. Intern</b> ▶ Frelii Web scraping SNPedia for AI training	Nov 2025 - <i>present</i> Sep 2025 - <i>present</i> Sep 2023 - Apr 2024 Apr 2022 - Sep 2023 Nov 2020 - Jun 2021 May 2019 - Sep 2019
PROJECTS	<b>Optimized bead/gravity sort</b> ▶ zig Bead sort done via popcount intrinsics and bit matrix transpositions. Only for 32 u5s <b>Tiny nkey rollover tester OS</b> ▶ zig Ported as OS class assignment to zig and then added keyboard input and vga output <b>Fast approximate change of base</b> ▶ python Novel algorithm for printing numbers larger than $10^{10^5}$ efficiently <b>Automated resume</b> ▶ typst Automated typst resume deployed to website <b>Held-karp</b> ▶ zig Well optimized bitset based Held-karp TSP algorithm <b>Spreadsheet formulas to DLL compiler</b> ▶ c A spreadsheet which compiles formulas to a DLL which can be used in DOTNET projects <b>Color alchemy</b> ▶ qt c++ A game for learning color mixing <b>CSS grid examples</b> ▶ css html Examples of common design patterns implemented with css grid as a good reference <b>Randomized Pacman game</b> ▶ java Pacman game using some algorithms from my 2420 class: A*, DFS, BFS, Union find	2026 2025 2025 2025 2025 2024 2024 2021
MISC	<b>Added code field to instruction decoder</b> ▶ MARS IDE #12 Ranked team at Rocky Mountain Regional Contest ▶ ICPC	2025 2025

**Jane Street Leaderboard**

Number Cross 5

Sum One, Somewhere

*May 2025*

*Apr 2025*