Robert Morelli

github.com/robertmorelli
385 315 0034
robertondino@outlook.com

Education

B.S. Computer Science University of Utah	2022 - 2027 *expected*
A.S. Computer Science (incomplete) SLCC	2019 - 2022 *transferred*

Technology

Comfortable Languages
- Python, C, Zig, Dart, JS, TS, WASM (WAT), Java, C#

Familiar Languages
- Ruby, C++, Rust, Swift, Metal, OpenCL, Typst, F#, x86 assembly, MIPS assembly, PHP, Bash

Misc
- Flutter, Angular, Laravel, cicd/github actions/circleCi, css, html/svg, mongoDB, Cordova

Experience

Research Assistant University of Utah — Nov 2025 - present
- Benchmarking gradual typing in Meta's Cinder variant of python

Teaching Assistant University of Utah — Apr 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% for users with poor internet

Research Assistant Intern Earl Keefe PhD — Nov 2020 - Jun 2021
- Visualizations for anthropology research

Web Dev. Intern Frelii — 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^{105} efficiently

Automated resume typst — 2025
- CICD typst resume

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