

Education

|  |                                |
|--|--------------------------------|
| <b>B.S. Computer Science (in progress)</b> <i>University of Utah</i>         | 2022 - 2027 <i>expected</i>    |
| <b>A.S. Computer Science (incomplete)</b> <i>Salt Lake Community College</i> | 2019 - 2022 <i>transferred</i> |

Technology

|  |
|--|
| <b>Expert</b> <ul style="list-style-type: none"><li>• Zig, Dart, JS, WASM (WAT), CSS, SVG, GitHub Actions, MIPS asm</li></ul>                        |
| <b>Proficient</b> <ul style="list-style-type: none"><li>• Angular, C, C#, Cordova, Flutter, HTML, Java, Python, TS, Typst</li></ul>                  |
| <b>Familiar</b> <ul style="list-style-type: none"><li>• Bash, C++, CICD, CircleCi, Laravel, Metal, MongoDB, OpenCL, PHP, Ruby, Rust, Swift</li></ul> |

Experience

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

Projects

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

Misc

|  |                      |
|--|----------------------|
| <b>Added code field to instruction decoder</b> <a href="#">MARS IDE ↗</a>  | 2025                 |
| <b>#12 Ranked team at Rocky Mountain Regional Contest</b> <a href="#">ICPC ↗</a>   | 2025                 |
| <b>Jane Street Leaderboard</b> <ul style="list-style-type: none"><li>• <b>Number Cross</b> <a href="#">5 ↗</a></li><li>• <b>Sum One, Somewhere</b> <a href="#">↗</a></li></ul> | May 2025<br>Apr 2025 |