MARCUS ADAIR

801-200-9857 | marcus.a.adair@gmail.com | GitHub | LinkedIn | Portfolio
Sandy, Utah - US Citizen

EDUCATION

- MS in Computer Science from the University of Utah — May 2025
- BS in Computer Science from the University of Utah — May 2023
  - Web/Mobile Development Track Certificate

SKILLS

- TypeScript, HTML/CSS, Python, Bash, React, SvelteKit, Next.js, React-Native, Tailwind, Git, AWS, CI/CD

WORK HISTORY

Junior Software Engineer *at SafeStreets, UT* — *05/2025 – Present*

- Building a full-stack TypeScript (TS) web app (SvelteKit, Node.js, Tailwind) and cross-platform mobile app (React-Native, Expo) from the ground up to replace legacy Salesforce software.
- Leading front-end architecture for web and contributing to mobile, designing reusable component systems, and contributing to API development and database schema design.
- Collaborating across a mono-repo housing the admin dashboard, mobile app, API, and PostgreSQL database-tools (Drizzle) for managing field technicians, appointments, inventory, territories, and more.

Graduate Research Assistant *at Scientific Computing and Imaging Institute, UT* — *08/2023 – 05/2025*

- Developed On-Demand Fakequakes (ODF), a full-stack web app using AWS to launch earthquake simulations through a dashboard interface, targeted for NASA and other science applications.
- Created a CI/CD pipeline with GitHub Actions to automate Docker builds, deployments, and AWS infrastructure updates via the AWS Cloud Development Kit.
- Built an interactive map interface with custom polygon drawing for selecting simulation zones, plus parameter editing via sidebar, modals, and dynamic forms.

Full-Stack Software Engineer Intern *at University of Oregon, OR* — *05/2024 – 08/2024*

- Initiated development of ODF, a Python-based dashboard (Plotly Dash) with an AWS workflow for automating earthquake simulations - later expanded into my Master's Project and graduate research.
- Containerized the app with Docker and deployed to AWS Fargate, designed the cloud architecture for simulation execution and data delivery.

Undergraduate Research Assistant *at Scientific Computing and Imaging Institute, UT* — *05/2022 – 08/2023*

- Designed an automatic, high-throughput simulation workflow using Python and Bash scripts on the Open Science Grid, reducing time from 20+ days to < 1.5 days for 30,000+ simulations.
- Authored an 8-page research paper published by ACM and presented findings at an SC '23 workshop.

PERSONAL PROJECTS

VVSB Website *– Full-stack website for a client* — *In-Progress*

- Developing a full-stack website for a Salt Lake City EDM event company using SvelteKit, handling everything from database schema design to polished front-end web animations.
- Built a merch storefront integrated with Square API for inventory management and secure checkout, plus S3 for photo storage and PostgreSQL/Drizzle for data persistence.
- Developed a secure admin interface with session-based authentication, API routes with input validation and error handling for CRUD operations, and configured production deployment on Railway.

Spatial Enrichment Data Engine *– BS Senior Capstone Project* — *08/2022 – 05/2023*

- Led front-end development for a geocoding web application in collaboration with Idaho National Laboratory as part of my undergraduate senior capstone project (Angular/.NET stack, TS, HTML/CSS)
- Designed Angular components, integrated Esri API library widgets for an interactive map, wired up the front-end to the team's .NET back-end, and implemented Figma designs.