MARCUS ADAIR

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US Citizen, Salt Lake City, Utah

EDUCATION

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

SKILLS

- Python, Bash, TypeScript, HTML/CSS, AWS, Docker, CI/CD, REST APIs, Git, Automation, Scripting, CLI

WORK HISTORY

Graduate Research Assistant *at Scientific Computing and Imaging Institute, UT* — *08/2023 - Present*

- Developed On-Demand Fakequakes, a full-stack web app leveraging Amazon Web Services (AWS) to launch earthquakes simulations, targeted for NASA and other science applications
- Built a CI/CD pipeline with GitHub Actions to automate Docker image builds, web deployments, and infrastructure-as-code stack updates through AWS's Cloud Development Kit
- Implemented OAuth user login system so users could create accounts for running simulations with allotted credits for enhancing security and limiting AWS cost

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

- Began development on Python-based web app (Plotly Dash) featuring a dashboard interface and an AWS Cloud Workflow to streamline and fully automate earthquake simulation software
- Containerized the application's web dashboard and the simulation software, including dependencies, using Docker for deployment to AWS Fargate
- Leveraged AWS technologies including Lambda, S3, Fargate, IAM, CloudFormation, and more to automate Cloud instance spawning and workflow management

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

- Designed an automatic, high-throughput simulation workflow using Python, Shell scripts, and more on the Open Science Grid (OSG), reducing time from 20+ days to < 1.5 days for 30,000+ simulations
- Containerized software and dependencies with Singularity for running simulations on OSG nodes
- Authored an 8-page research paper published by ACM and presented findings at an SC '23 workshop

PROJECTS

Spatial Enrichment Data Engine – BS Senior Capstone Project

- Led front-end development for a geocoding web application in collaboration with Idaho National Laboratory as part of my undergraduate senior capstone project
- Leveraged Angular/.NET stack, TypeScript, CSS/HTML, and more to implement front-end
- Designed Angular components, integrated Esri API library widgets for an interactive map, implemented GET requests to the backend, implemented user stories, and more

marcusadair.com – Portfolio Website

- Used React, Node.js, and TypeScript to develop a portfolio website to showcase code experience
- Implemented a simple CI/CD pipeline with GitHub Actions to automate deployment to GitHub Pages