

Dax McPartland

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EDUCATION

University of Utah

Aug 2021 – May 2025

Bachelor of Science in Computer Science, Minor in Mathematics

GPA 3.87

Relative Coursework: Object Oriented Programming, Algorithms, Machine Learning, Computer Vision

EXPERIENCE

Software Engineer Intern

May 2024 – Aug 2024

BAE Systems

Remote

- Created a React application that visualizes logistic data for a government customer.
- Improved processing time of XML documents with a 87% speedup over previous solutions.
- Implemented a web service in Express.js that uses CRUD operations for storing and retrieving information into a PostgreSQL database.
- Utilized CI/CD pipeline with automated testing procedures to ensure code quality before deployment.

Software Engineer Intern

May 2023 – Aug 2023

BAE Systems

Hill AFB, UT

- Used React and Typescript to create a website enabling admins to manage and review user feedback within an existing system.
- Developed REST APIs with Node.js to connect the front-end interface with backend services.
- Created documentation using FastAPI to help customers understand our API requests.
- Established testing protocols, including End-to-end with Cypress and unit tests with Jest, to ensure the reliability of the application.

PROJECTS

Settle

July 2024 – Present

Lead Developer

- Designed and developed Settle, a dating app for iOS and Android, using React Native.
- Built the backend with Firebase, leveraging its services for database management and authentication.
- Integrated a CI/CD Pipeline with automated testing procedures to ensure code quality before deployment.
- Developed minimum viable product(MVP) capable of early-stage revenue generation.

Procedural Terrain Generation

May 2024 – June 2024

- Created a procedural generated terrain system using C++ and OpenGL.
- Leveraged the OpenGL shading language (GLSL) to enhance visual quality with dynamic lighting.
- Used Perlin noise algorithm to generate realistic heightmaps.

SignLearner

June 2023 – Aug 2024

- Developed SignLearner, an interactive mobile app using React Native, to assist users in learning sign language.
- Implemented AI-powered image recognition using YOLOv5, enabling users to receive real-time feedback on their sign language accuracy through the app's camera feature.
- Utilized MySQL as the backend storing user progress and achievements.
- Built a Python Flask web service with REST API's to connect to the front end and database.

TECHNICAL SKILLS

Languages: C++, C, Python, Java, JavaScript, HTML, CSS, SQL

Frameworks: React, Node.js

Tools: PostgreSQL, Git/GitHub, Linux

EXTRACURRICULAR ACTIVITIES

Competitive Programming Club

Dec. 2022 – Present

Officer

SLC, UT

- Competed in **ICPC** Rocky Mountain Regional 2023 and 2024 competitions.
- Facilitated weekly study sessions to discuss high-level **Algorithms and Data Structures**