

# Dax McPartland

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## EDUCATION

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### University of Utah

Aug 2021 – May 2025

*Bachelor of Science in Computer Science, Minor in Mathematics*

*GPA 3.9*

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

## EXPERIENCE

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### 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

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### NetMax

September 2024 – May 2025

- Collaborated with a team of three engineers to build a unified network testing platform for L3Harris. NetMax allowed L3Harris engineers to execute, manage, and analyze network tests without deep expertise in multiple complex testing frameworks.
- Implemented a robust API layer to handle test orchestration, allowing seamless integration of NetMax into existing engineering workflows and external projects.
- Built a user-friendly frontend dashboard providing real-time and historical analytics for network tests, improving visibility, debugging efficiency, and decision-making.
- Created a system for persisting and sharing test configurations, enabling rapid test repetition, collaboration across teams, and reduced testing errors.

### 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

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

**Frameworks:** React, Node.js

**Tools:** PostgreSQL, Git/GitHub, Linux