

Matthew Patterson

U.S Citizen | mattp082404@gmail.com | (702)-272-6419 | [GitHub](#) | [LinkedIn](#)

SKILLS

Technical Skills: C/C++, Python, JavaScript, Linux, Git, React, HTML, CSS, SQL, Flask, TensorFlow, fastai, NodeJS, Visual Studio Code, R, R Studio, Windows, Oracle VM, Swift (iOS), Julia, Lua (Roblox), Microsoft Office, G-Suite

Languages: English (Native), Japanese (Fluent)

EDUCATION

University of Nevada Reno

Reno, Nevada

B.S. in Computer Science and Engineering, Minor in Math

Expected Graduation, May 2026

- **Concentration:** Software Engineering
- **Related Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Computer Organization & Programming, Linear Algebra, Probability and Statistics, Embedded Systems Design, Automata & Formal Languages, Analysis of Algorithms,

Techwise by Google and Talentsprint

Reno, Nevada

Software Engineer

March 2024 - Current

- Participating in an 18-month prestigious program offered to only 110 students worldwide to prepare for software engineering careers, receiving 1:1 training with mentors from Google
- Awarded \$4250 in scholarships

PROJECTS

Interstellar Automated Visualizer | [Demo \(Sample URL\)](#)

Reno, Nevada

Team Member

October 2024

- Built a full-stack web application using React to create a visualizer tool that automatically scrapes and transforms data from NASA case studies into interactive graphs and plots, improving data accessibility for researchers.
- Led frontend development, designing and implementing visually compelling and user-friendly interfaces with HTML, CSS, and JavaScript, as well as a responsive Chatbot for further assistance to deliver an intuitive overview

BlazeGuard | Wildfire Classifier Web Application (Python)

Las Vegas, Nevada

Team Member

Jul 2024 - Aug 2024

- Developed a full-stack web application employing a machine learning classification model to predict wildfire probabilities from satellite images, improving wildfire prediction accuracy by 85% using 30,000+ images from the Kaggle API.
- Implemented the backend using Flask API, TensorFlow, and fastai, ensuring efficient processing and accurate predictions
- Executed the Frontend using React, providing users with a seamless experience in uploading images and viewing prediction results.

Emotion Classifier

Reno, Nevada

Team Member

March 2025

- Developed a machine learning-based emotion classifier using a Kaggle dataset of posts from X
- Implemented and compared Logistic Regression, K-Nearest Neighbors (KNN), and Support Vector Machine (SVM) models to identify the most effective approach
- Achieved a 91% improvement in classification accuracy using Logistic Regression, outperforming other models

ACTIVITIES

NASA 2024 Space Apps Challenge Global Finalist

Virtual

Participant

October 2024

- Outperformed over 15,000 teams globally to develop a cutting-edge tool for NASA scientists to generate scalable visualizations of biological experiments conducted in space, significantly improving data accessibility and comprehension
- Developed an interactive visualizer using React and Dash, empowering NASA scientists with an intuitive tool that enhances the understanding of space flight cases within the NASA database, improving data scalability and accessibility for future research.
- Used Google Cloud services to deploy as a complete Web Application
- Was 1 of 40 Nominated teams to be selected as a Global Finalist