Karma Woeser

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TECHNICAL SKILLS

Languages: Python (4 years), JavaScript (3 years), C (3 years), Java (1 year)

Frameworks & Libraries: React, Flask, Express, Pandas, NumPy, Scikit-learn, Tailwind CSS Tools & Technologies: Git, Linux, Docker, Jupyter, Node.js, MongoDB, PostgreSQL, AWS

EXPERIENCE

Cognizant

June 2024 – August 2024

Generative AI Intern Remote

Fine-tuned LLMs using PyTorch and analyzed task-specific metrics to guide deployment of internal team tools.
Documented model performance to support team decisions on deployment strategies and optimization.

UO Solar Radiation Monitoring Lab

Sept 2022 – June 2023

Data Analyst Intern

Eugene, OR

- Refactored 800+ lines of legacy Perl into Python, improving code readability and reducing complexity by $\sim 40\%$.
- Automated data processing using Python and NumPy, increasing processing speed by $\sim 25\%$ based on data throughput across station datasets.
- Retrieved and validated solar radiation data from monitoring stations across Oregon as part of field data collection efforts.

EDUCATION

University of Oregon

Eugene, OR

BS in Computer Science, Minor in Math

Expected Graduation Date: June 2025

Coursework/Clubs: Leet Club, Data Structures and Algorithms II, Machine Learning, System and Security Administration, Software Engineering

PROJECTS

Fake News & Political Bias Detector | Python, Scikit-learn, FastAPI, React, TypeScript

App Link

- Built a full-stack web app to detect misinformation and political bias in news articles, using a text classification model that achieved a 98% F1-score on 45,000+ samples.
- Developed a FastAPI backend to serve model predictions and handle article URL processing.
- Built a responsive **React and TypeScript** frontend for submitting URLs and displaying results.

Article Curation Platform | TypeScript, React, Node.js, PostgreSQL, Tailwind CSS, Docker, AWS

App Link

- Has been used by **50+ students** to save and manage their favorite articles.
- Built a React frontend with optimized API requests using React Query for caching and background updates.
- Deployed on AWS EC2 using Docker Compose with a self managed PostgreSQL instance.

GitRead - README Generator | Python, Flask, React, Google Gemini API, GitHub OAuth

App Link

- Used by 100+ students on campus, making documentation easier for developers.
- Developed an automated tool that generates detailed README templates from GitHub repositories.
- Integrated secure GitHub authentication via Flask-Dance for a smooth login experience.

House Prices Predictor | Python, Flask, Pandas, scikit-learn, Matplotlib

Github

- Built a machine learning pipeline to predict house prices using a dataset of 1,460 homes and 79 features.
- Created a Flask API to integrate the trained machine learning model.
- Optimized Random Forest and Gradient Boosting models using GridSearchCV, reducing RMSE by 10%.

EasyA - Grading Analysis App | Python, Flask, JavaScript, MongoDB, Docker

Github

- Built backend **APIs** to process and filter grading distributions.
- Integrated Chart.js to create interactive, real-time grade trend visualizations.
- Designed a MongoDB schema for efficient storage and querying of historical grading data.

AI Chatbot | React, Express, Clerk API and Google Gemini API

App Link

- Developing a full-stack AI chatbot application using **React** for the front-end and **Express** for the back-end, integrating **Google Gemini AI** for NLP.
- Implemented Clerk for user authentication and management, enabling secure user sign-ups and logins.