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
- Assisted in the fine-tuning of models using **PyTorch** and evaluated performance to inform further optimization.
- Documented model behavior, results, and tradeoffs to support ongoing development and experimentation.

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.
- Automated data processing using **Python** and **NumPy**, increasing processing speed by ∼**15%**.
- Retrieved and validated solar radiation data from monitoring stations across Oregon.

EDUCATION

University of Oregon   Eugene, OR
BS in Computer Science, Minor in Math   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*
- 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*
- 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*
- 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.

Lung Cancer Risk Predictor | *Python, Pandas, NumPy, scikit-learn, FastAPI, React, TypeScript*
- Built a full-stack health app to estimate lung cancer risk based on user symptoms and lifestyle factors.
- Designed a custom scikit-learn pipeline with mapping, scaling, and outlier handling for clinical features.
- Deployed a **FastAPI backend** and **React frontend** for real-time predictions via a clean user form.

EasyA – Grading Analysis App | *Python, Flask, JavaScript, MongoDB, Docker*
- 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, Google Gemini API*
- Developing a full-stack AI chatbot application using **React** for the frontend and **Express** for the backend, integrating **Google Gemini AI** for NLP.
- Implemented Clerk for **user authentication** and management, enabling secure user sign-ups and logins.