

# Karma Woesser

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## TECHNICAL SKILLS

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**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, Selenium

## EXPERIENCE

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### Generative AI Intern

June 2024 – August 2024

Cognizant

Remote

- Assisted in the fine-tuning of models using **PyTorch** and evaluated performance to inform further optimization.
- Documented model behavior, tradeoffs, and testing results to support continued development.
- Used **Selenium** to test frontend integration and validate model output rendering.

### Software Engineering Intern

Sept 2022 – June 2023

UO Solar Radiation Monitoring Lab

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%**.
- Built internal tools to validate and transform data from 5+ solar monitoring stations across Oregon.

## EDUCATION

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### 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

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### 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 **40+ 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.

### Heart Failure Predictor | *Python, Pandas, scikit-learn, FastAPI, React, TypeScript*

- Built a full-stack health app to estimate heart failure 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 user input.

### 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.