Yanmei Wang

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EDUCATION

University of Michigan, Ann Arbor, United States 04/2025
M.S. in Computer Science & Engineering, GPA: 3.9/4.0
B.S.E. in Computer Science, GPA: 3.8/4.0

Shanghai Jiao Tong University, Shanghai, China 08/2023
B.S.E. in Electrical and Computer Engineering, GPA: 3.6/4.0

SKILLS

Languages: Python, C++,C#, HTML/CSS, Javascript, GoLang
Framework: React.js, Tailwind CSS, SQLite, OpenAI API
Technical skills: Agile Development, Data Structures, Testing, CI/CD, Relational databases, Web Design & System, Operating System, Software Development Cycle, Machine Learning
Tools: Git, Microsoft Azure, Jira, Confluence, XCode, VS Code, JetBrains IDEs, Unity

WORK EXPERIENCE

Software Engineer Intern (Python, Azure) @ Carsley Solutions Remote, US | 01/2025 - present
- Engineered a dashboard web service using **Django** to manage and monitor multiple services across distributed servers. Utilize **SQLite3** to store and manage status updates from multiple services.
- Developed **RESTful API endpoints** for real-time data exchange, enabling efficient **HTTP communication** between the dashboard and managed services
- Deployed the service using **GitHub CI/CD** tools and **Microsoft Azure**.

Research Assistant @ UMich Ann Arbor, MI | 09/2022 - 02/2024
- Engineered a prototype using **Python Numpy**, **Pandas**, and **Scipy** libraries that powers the lab's core project.
- Owned the **end-to-end** development of the data analysis pipeline, ensuring accuracy and scalability in processing biological and environmental datasets and identifying over 72 types of data patterns.
- Engineered and optimized data processing algorithm that improved computing overhead by ~1.6x.
- Accelerated the iteration cycle of algorithms from 1 week to 3 days by visualizing the duration of detected events using **Matplotlib**, enabling the engineering team to identify event periods on a timeline.
- Directed the **code version control** and **documentation** between the engineering and cloud dev teams, resulting in a well-organized changelog over 78 iterations, ensuring transparency and easy tracking of updates.

PROJECT EXPERIENCE

AI-Based E-Commerce Analysis & Recommendation CLI [Repo] 01/2025
- Developed a recommendation CLI using **Python** (**SKLearn, Pandas, Numpy, etc.**) that generates synthetic data, analyzes data, performs clustering, and provides AI-based recommendations based on customers' purchase history.
- Performed **K-Means clustering** using RFM features, and evaluated the clustering results using **Silhouette Score**.
- Generated reports using **Matplotlib** and interactive 3D clustering visualization using **Plotly**.
- Leveraged **SentenceTransformer** pre-trained models to perform similarity calculations for content-based filtering recommendations.

APOD Daily Feed [Link] 11/2024
- Developed a web app using **React.js** that displays NASA's Astronomy Picture of the Day (APOD) feeds.

LLM (GPT-4o) Powered Tutoring Web App [Demo Video] 10/2024 - 11/2024
- Developed a **Django-based** AI tutoring system (focused on the MCQ section) using **Python** and **OpenAI API**, supporting students' learning experiences on the Toulmin writing model.
- Managed pre-defined articles, user progress, and run-time generated questions using **SQLite.**
- Performed **prompt engineering** on GPT-4o instances to fetch customized feedback based on students' responses.

Web-First, Accessible Game Engine Development [Spec | Git Repo] 01/2024 – 01/2025
(Research directed by Professor Austin Yarger @ UMich)
- Developed a web-based game engine for **RTS** + **tower defense** games.
- Implemented the in-game toast message system using **C# Godot** and **Eventbus library**.
- Created the generalizable tower and resource functionalities using **Godot** (**C#**), ensuring tower object animation and material adaptation.
- Adapting **AWS** servers to dynamically load resources into the game at runtime.