Yanmei Wang

Phone: (US+1) (734) 548-7207 | E-mail: wyanmei@umich.edu | Portfolio | Github: Yanmeeei | LinkedIn: Yanmei

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, AWS, Jira, Confluence, XCode, VS Code, JetBrains IDEs, Unity

WORK EXPERIENCE

Software Engineer Intern @ PreVeil, Inc.   Boston, MA | 06/2024 - 08/2024

- Developed a middleware for file system integration using **Swift** and **GoLang**, enabling real-time management and synchronization of drive files across devices; laid the groundwork for integration into end-user environments and future product deployment. Adapted **Agile methodology**.
- Implemented and deployed **22 RESTful API** endpoints using the **Swift Alamofire** library to send and receive **HTTP** requests, ensuring efficient interactions with remote drives.
- Developed and deployed over **30 unit tests** for the backend functions using **XCTest**; conducted API testing using **Postman** to ensure code integrity.
- Iterated and improved **UI/UX** of PreVeil Desktop/Web App using **TypeScript, Javascript,** and **HTML/CSS**, improving performance and user experience, and contributing to a more intuitive interface for thousands of users.

Software Developer Intern @ Arborsense, Inc.   Ann Arbor, MI | 09/2022 - 02/2024

- Engineered a prototype using **Python Numpy**, **Pandas**, and **Scipy** libraries that powers the company's core product.
- 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 an 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 customer's 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 progresses, and run-time generated questions using **SQLite.**
- Performed **prompt engineering** on GPT-4o instances to fetch customized feedback based on students' responses.

Instagram Clone Web App   10/2022 – 11/2022

- Built an Instagram-like social media website and deployed it to an **AWS EC2** instance.
- Developed & improved the website layout using **HTML/CSS**.
- Implemented back-end services to update user interactions in real-time using **Python Flask**, and integrated with **SQLite** database for CRUD operations on the user, following, and commenting tables.
- Developed **client-side dynamic pages** with infinite scrolling & updates without refreshing using **React.js**.