Yanmei Wang

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EDUCATION

University of Michigan, Ann Arbor, United States 04/2025
M.S. in Computer Science & Engineering, GPA: 3.95/4.0
B.S. in Computer Science, GPA: 3.8/4.0

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

SKILLS

Languages: Python, C#, C++, HTML/CSS, Swift, GoLang, Javascript
Framework: XCTest, Numpy, Pandas, React.js, Django, Flask, SQLite, Alamofire, OpenAI API
Tools: Git, AWS, Jira, Confluence, XCode, VS Code, JetBrains IDEs, Unity
Technical skills: Agile Development, Data Structures, Unit Testing, Debug, CI/CD, Relational databases, Web Design & System, Operating System, Software Development Cycle, Machine Learning, Delta Debug

WORK EXPERIENCE

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

- Developed a prototype for mounting the online PreVeil Drive to **macOS** devices' file system using **GoLang** and **Swift**, enabling real-time management and synchronization of drive files across devices, and laying the groundwork for integration into end-user environments and future product deployment.
- Implemented and deployed 22 **RESTful API** endpoints using the **Swift Alamofire** library sending **HTTP** requests, ensuring efficient interactions with remote drives.
- Developed and deployed over **30 unit tests** for the JSON decoder and the backend API endpoints using **XCTest**. Additionally, conducted API testing with **Postman**, ensuring 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.
- Engineered a diagnostic API endpoint for PreVeil Drive using **GoLang**, optimizing data pagination from the server backend, which reduced data flow overhead and improved response time by ~1.5x. Improved the corresponding diagnostic frontend webpage using **HTML** and **Javascript** to adapt to pagination.

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

- Engineered a prototype using **Python Numpy**, **Pandas**, and **Scipy** libraries. Owned the **end-to-end development** of the data analysis pipeline, ensuring accuracy and scalability in processing biological and environmental datasets, identifying **over 72 types of data events**, and powering the company's core product.
- **Optimized** data processing algorithm using sliding windows, accelerating computing overhead **by ~1.6x**.
- Generated chart reports that mark the duration of detected events using **Matplotlib**, enabling the engineering team to visually identify event periods on a timeline, accelerating the iteration cycle of algorithms **from 1 week to 3 days**.
- Directed the **code version control** and **documentation** between the engineering team and cloud dev team, resulting in a well-organized changelog over 78 iterations, ensuring transparency and easy tracking of updates.

PROJECT EXPERIENCE

LLM (GPT-4o) Powered Tutoring System 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.

BIO 452: Field Ecology of Snail-Fungus Interaction [Gamejolt | Portfolio] 03/2023 – 05/2023

- Engineered core mechanisms in **Unity** (**C#**): special ground blocks, the navigation and auto-attack features of little snail & mushroom RTS units, etc. The game was **ranked 6/30** on the UMich game showcase by player voting.
- **Led** the **design** of the player experience and art, creating in-game art assets, and achieving appealing visual effects.

Instagram Clone Web App 10/2022 – 11/2022

- Developed 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**.