# Yanmei Wang

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#### **EDUCATION**

## University of Michigan, Ann Arbor, United States

04/2025

08/2023

M.S. in Computer Science & Engineering, GPA: 3.9/4.0

B.S. in Computer Science, GPA: 3.8/4.0

## Shanghai Jiao Tong University, Shanghai, China

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. is, 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 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** within the engineering team, resulting in a well-organized changelog over 78 iterations to ensure transparency and easy tracking of updates.

#### PROJECT EXPERIENCE

# LLM (GPT-40) Powered Tutoring System

10/2024 - 11/2024

• Developed a **Django-based** AI tutoring system using **Python**, **SQLite**, and **OpenAI API**, supporting students' learning experiences on the Toulmin writing model.

Delta Debugger 10/2024

• Developed a delta debug tool using Python on an AWS EC2 instance, automatically minimizing test suites.

# Dr. BOX: Package Design and Analysis Web Interfaces

05/2023 - 08/2023

- Developed & improved the Dr. Box online platform website layout using HTML/CSS, improving UI/UX.
- Integrated a Chinese language dictionary into the website using PHP, and developed language-switching functionality using HTML/CSS, increasing registered package box manufacturers by 25% (up until the end of this project).

## 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 art and player experience design, 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.