

Jiayu Liang (Amy)

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EDUCATION

University of Michigan

Ann Arbor, MI

Bachelor of Engineering in Computer Science, Minor in User Experience Design (GPA: 3.76)

Aug. 2022 - May 2026

Coursework: Data Structures and Algorithms, Artificial Intelligence, Software Engineering, Web Systems, Advanced Programming and Principles of Software Design, Data-Driven Web Applications

Co-President, Society of Asian Scientists and Engineers: Led 100+ members and organizing 10+ technical workshops to promote STEM engagement among Asian students

WORK EXPERIENCE

Everyone Can Code Chicago Partnered with Apple

Chicago, IL

AI/ML Software Engineering Intern

Jun. 2024 - Aug. 2024, Jun. 2025 - Aug. 2025

- Built an AI-powered plant recognition and care assistant app, training a Core ML image classification model on ~2,000 labeled images across 20 species
- Deployed the Core ML model into a Swift-based application, handling on-device inference and structured result processing
- Engineered an LLM-based plant care AI agent using Dify, integrating Tavily API for web retrieval and structured prompt orchestration to generate accurate, context-aware responses

Software Engineering Intern

Sep. 2022 - Dec. 2022

- Developed and shipped epiFoods, a Swift-based food safety scanner app with Firebase Authentication, enabling secure user accounts and personalized tracking across 10 common and custom allergens; tested with ~20 beta users
- Integrated the Open Food Facts REST API with real-time barcode scanning, retrieving and parsing product metadata from a 4M+ item public database; implementing normalized string matching to detect allergens in unstructured ingredient lists

PROJECT EXPERIENCE

Distributed Search Engine

- Architected a multi-stage Hadoop MapReduce pipeline in Python to compute TF-IDF scores and construct a segmented inverted index for scalable document retrieval
- Implemented distributed index servers exposing REST APIs to serve JSON-formatted search results, partitioned by index segment for horizontal scalability
- Constructed a search server that issued parallel API requests to multiple index services, aggregated ranked results, and returned the top 10 matches via dynamic HTML pages

Puzzle Games

- Engineered backend components for a multi-game puzzle platform, designing modular game engines within a unified system architecture
- Implemented spelling bee in TypeScript, decoupling core game logic from the I/O to improve modularity and testability
- Designed persistent game state by serializing configuration objects to JSON and storing them in the SQLite database, enabling save-and-resume functionality across user sessions

Insta485

- Developed a full stack Instagram clone using React and Flask, implementing REST APIs to support dynamic content rendering and state synchronization between client and server
- Modeled relational database schemas in SQLite for users, posts, and interactions; deployed on AWS to verify end-to-end system integration

SKILLS

Programming Languages: C/C++, Python, JavaScript, TypeScript, HTML/CSS, SQL (SQLite, MySQL), Swift

Backend & Frameworks: Flask, Django, RESTful API, Hadoop MapReduce

Tools & Infrastructure: AWS, Git, Linux, JSON, XCode, Github Copilot, Cursor, Prompt Engineering, Agile

Languages: English (Native), Chinese (Native)