

Omer Sipahioglu

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EDUCATION

Michigan State University

Bachelor in Computer Science, Minor in Cognitive Science

East Lansing, MI

Aug. 2022 – May 2026

EXPERIENCE

Undergraduate Teaching Assistant

Michigan State University

Jan 2023 – Aug 2024

East Lansing, MI

- Mentor over 150 Introduction to Programming students, explaining challenging concepts to both Computer Science and non-technical majors
- Provided support to professors in the delivery and assessment of educational programs. This may include grading assignments, leading discussion groups or tutorials, assisting with class preparation and administrative tasks, and providing guidance and mentorship to students.

Student Front-End Web Developer

Michigan State University

Feb. 2024 – Present

East Lansing, MI

- Utilized PHP and MySQL to develop and maintain dynamic web applications, ensuring seamless integration between front-end interfaces and back-end databases.
- Contributed to the development of MSU's interactive campus mapping system, implementing responsive design principles and optimizing user interface components for improved navigation and accessibility.
- Developed and applied a foundational understanding of HTML and front-end web design principles to support website layout updates and content migration projects.
- Assisted in integrating and enhancing college websites within the MSU College of Engineering, focusing on improving user experience and site functionality.

PROJECTS

Personal Portfolio Page with Interactive Chat

March 2024

- Developed a full-stack web application using Flask and MySQL, implementing secure user authentication with password encryption using Scrypt
- Engineered real-time bidirectional communication using WebSocket technology (Socket.IO) for instant message delivery
- Utilized Docker containerization for consistent deployment across environments
- Integrated MySQL database with proper security measures for user data storage
- Implemented AJAX for asynchronous form submissions and dynamic content updates

RecipeIO | Swift, SwiftUI, Firebase, OpenAI API

May 2025 – Present

- Designing and developing a native iOS app to help home cooks organize, store, and enhance personal recipes with AI-generated suggestions.
- Building using SwiftUI for a modern, responsive user interface and Firebase for authentication (email/Apple ID), cloud-based recipe storage (Firestore), and media storage (Firebase Storage).
- Integrating OpenAI API to generate personalized cooking tips, ingredient substitutions, and improvement suggestions based on recipe content.
- Implementing structured data models for recipes with fields for title, ingredients, instructions, tags, categories, and user-uploaded images.

TECHNICAL SKILLS

Languages: Swift, Python, Javascript, SQL (Postgres), HTML/CSS, C++

Frameworks: SwiftUI, Flask, Firebase (Firestore, Auth, Storage), Socket.IO, Docker, WebSocket, MySQL, PHP, HTML/CSS, AJAX

Developer Tools: Git, Docker, Google Cloud Platform, VS Code, Xcode