

WILLIAM ZHANG

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EDUCATION

University of Michigan

Bachelor of Science in Engineering - Data Science

GPA: 3.61/4.00

Relevant Coursework: Data Structures and Algorithms, Web Systems, Computer Organization, Intro to Data Science

Ann Arbor, MI

May 2027

EXPERIENCE

University of Michigan Nuclear Sciences Department

Research Assistant

Ann Arbor, MI

September 2023 - May 2024

- Led a collaborative effort to develop an immersive **virtual reality** game aimed at teaching nuclear safety to students, leveraging **Unity** and **Oculus Quest** for an engaging learning experience
- Incorporated advanced **Uptale** technology and 3-D cameras to create a high-fidelity extended reality environment, significantly enhancing **interactive** learning
- Developed and optimized **C#** scripts, reducing system latency by **30%** and improving **responsiveness**, facilitating a more **effective** educational tool

Institute of Electrical and Electronics Engineers

Student Volunteer

Chicago, IL

July, 2023

- Assisted in planning and execution of the annual (2023) **IEEE** International Conference, **coordinating logistics** on **room monitoring** to support the conference with over **600** attendees
- Cultivated a **global** professional network by engaging with experts in the IEEE conference **from over 30** countries, deepening knowledge in current **software engineering** and **services computing technologies**

PROJECTS

MatchaBot

August 2024

- Developed a Discord bot, 'Matcha', utilizing **Python** and **discord.py** library, enhancing server interaction and providing high quality music playback with **FFmpeg** and **YoutubeDL**
- Enhanced community engagement by **40%** through the integration of **OpenAI GPT-4**, enabling users to dynamically interact in **real-time** directly within Discord to over **20,000** active users

InstaShare

August 2024 - Current

- Developed "InstaShare", a dynamic social media application, utilizing **React**, **HTML**, **CSS**, **Python**, and **Flask**, emphasizing features such as user registration, content management, and social interaction to boost user engagement
- Optimized web application performance and scalability on **AWS ECS** by implementing **AJAX** calls with **TypeScript** to a **REST API** and refining **SQL** data management, leading to more efficient user interactions and increased application responsiveness, enhancing overall performance by **20%**
- Ensured **robustness** and reliability of "InstaShare" with comprehensive testing with **Cypress**

AppointmentApp

May 2024 - Current

- Integrated an appointment scheduling system with **Swift** and **SwiftUI** for **JP Foot Spa**, enhancing client flexibility in booking, modifying, and canceling appointments through an intuitive interface
- Implemented a real-time **Supabase** database to synchronize data across multiple devices, ensuring accurate and timely updates that improve operational efficiency for both customers and employees
- Reduced the time required for clients to schedule appointments by **50%**, alleviating the need for the owner to interrupt services for phone reservations, enhancing both client satisfaction and operational workflow

SKILLS

Languages: C++, Python, Java, Javascript, TypeScript, React.js, HTML, CSS, Swift, SwiftUI, SQL, C#

Tools/Frameworks: Git, Supabase, Pandas, Docker, Discord.py, Jinja2, Flask, REST, AWS, Bootstrap