WILLIAM ZHANG

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EDUCATION

University of Michigan **Ann Arbor, MI**
Bachelor of Science in Engineering - Data Science *May 2026*
GPA: 3.61/4.00
Relevant Coursework: Data Structures and Algorithms, Web Systems, Computer Organization, Intro to Data Science

EXPERIENCE

University of Michigan Nuclear Sciences Department **Ann Arbor, MI**
Research Assistant *September 2023 - May 2024*

- Lead 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 **Chicago, IL**
Student Volunteer *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**, **Jinja2**, and **Flask,** emphasizing features such as user registration, content management, and social interaction to boost user engagement
- Enhanced application **performance** by **20%** and optimized application performance and scalability on **AWS EC2**, leveraging **TypeScript** for **AJAX** calls to the **REST API** and utilizing **SQL** for efficient data management.
- 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