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

Innovation For Impact | Student Organization   **Ann Arbor, MI**
Project Lead   *September 2024 - Present*
- Enhanced the existing **MTutor** application, leading a team of two developers to refine features and optimize performance for over **600** University of Michigan students
- Implemented performance improvements using **MongoDB**, **Node.js**, **Firebase**, and **React Native**, achieving a **35% increase** in platform responsiveness and a **20% reduction** in load times

University of Michigan Nuclear Sciences Department   **Ann Arbor, MI**
Research Assistant   *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

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, MongoDB, Pandas, Node.js, Jinja2, Flask, REST, AWS, Bootstrap, Firebase, Supabase