# Derek Yang

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## EDUCATION

**University of Michigan**                                                  **Ann Arbor, MI**

*Bachelor of Science in Engineering in Computer Science, Minor in UX Design, Business*       *May 2026*

**GPA: 3.96/4.00**

Awards: Dean's List (Fall 2022, Winter 2023, Fall 2023, Winter 2024), James B. Angell Scholar, XR @ Michigan 2023 Student Showcase - Best Environment, William J. Branstrom Freshman Prize

Coursework: Data Structures and Algorithms, Software Engineering, Extended Reality, Web Design, Web Systems, Foundations of Computer Science, Intro to Computer Organization

## EXPERIENCE

**Next Play, Daily Fantasy Sports**                                                **Remote**

*Software Engineer Intern*                          *May – August 2024*

- Built full-stack software using agile methodologies with ClickUp, boosting app traffic by 10%
- Developed React components in TypeScript to create user-friendly app experiences
- Tested user entries through mock API tests with Postman to ensure functional data storage
- Utilized responsive design approach with CSS media queries to create adaptable components based on screen size

**University of Michigan Robotics Department, MAVRIC Lab**                      **Ann Arbor, MI**

*Research Assistant*                                *May – August 2023*

- Researched human-robot interaction in context of AR and shared mental models to develop AR collaborative tasks for human-robot team
- Formulated and built color-sorting task on Magic Leap 2 using eye, marker, and hand tracking APIs from Unity SDK
- Employed ROS2 system to assemble controller to automate two AR robots according to other agents' intentions
- Presented summary of past research and own research to professors through written reports and live demo

## PROJECTS / EXTRACURRICULARS

**CLAWS, NASA SUITS Challenge**                                    *April 2023 – Present*

*AR Team Member*

- Implemented frontend interface for astronaut communication system using Microsoft MRTK and C# scripts, allowing seamless messaging between astronauts and mission control center
- Developed new end-to-end features for astronauts to screenshot, journal, and analyze geosamples, making geosampling faster than competing implementations
- Collaborated with UX and design teams to continuously improve and iterate on AR features utilizing Unity and C#

**MHacks 16, SHAKYS.**                                              *November 2023*

*Project Lead*

- Led team of four to devise 2D action game with "smart bosses" able to adapt to player's habits
- Spearheaded implementation for neural networks and adaptive AI using C# scripts and Unity

**Entrepreneurial Design: AR/VR Lab, 1:AM Train**                          *February – April 2023*

*Unity Developer*

- Designed storyboard for VR game by discussing interface and user actions in collaboration with team members
- Wrote C# scripts in Unity to integrate swimming and voice recording functionality in VR
- Showcased game to students, faculty members, and industry workers with presentation and live demo

## COMPUTER SKILLS

Platforms: Windows, Unix

Languages: C/C++, C#, Python, JavaScript, TypeScript, SQL, HTML/CSS

Tools/Frameworks: Unity, Unreal Engine, Git, React, ROS2, Figma, Blender, Excel