

# Erika Sy

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## EDUCATION

University of Wisconsin, Madison

Sep. 2024 - Expected May 2026

Bachelor of Science, *Computer Science*

Coursework - Introduction to Artificial Intelligence, Introduction to Computer Engineering

University of Illinois, Chicago

Aug. 2022 - May 2024

Bachelor of Science, *Computer Science*

Coursework - Software Design, Machine Organization, Data Structures, Programming Practicum, Discrete Math, Calc 3, Stats 1, Physics 1

## SKILLS

Languages: C++, C, Python, Java, JavaScript, HTML, CSS, R

Frameworks & Libraries: MediaPipe, Unreal Engine, Pandas, React

Tools: Git, SimRobot, Codesys, Miniconda, Pycharm, SolidWorks, Postman, PowerBi, Figma

## EXPERIENCE

Undergraduate Research Assistant

Sep. 2024 - Present

University of Wisconsin, Madison

- Engaged in a RoboCup project focusing on advancing autonomous humanoid robots through cutting-edge motion and decision-making technologies.
- Contributing to robotic motion analysis using **SimRobot** to significantly enhance robot walking speed and agility in competitive scenarios.

Augmented Reality Development Extern

Sep. 2024 - Present

Snap Inc.

- Set to develop and test **4** AR projects in **Snap's Lens Studio**, utilizing 2D/3D assets and design principles to create immersive digital stories.
- Collaborate with industry experts to explore **AR** technology storytelling techniques and present interactive brand stores to diverse audiences.

Business Technology Solutions Intern - *AbbVie*

May 2024 - Aug. 2024

University of Wisconsin, Madison

- Identified and implemented automation opportunities within the ServiceNow platform to enhance efficiency and reduce operational costs.
- Led **8** employee workshops, used **Spreadsheets** to document **12** processes, and utilized **Visio** to map out 5.
- Assisted in rebranding the **AI** landing page, contributing to a more user-friendly interface that improves the customer experience.
- Conducted **3** batches of smoke testing using **Postman** and contributed to the prompt engineering library.

Research Assistant

Feb. 2024 - May 2024

University of Illinois, Chicago

- Contributed to a project to develop a digital twin for managing nuclear waste, utilizing technologies such as **Codesys** and **Unreal Engine**.
- Discussed performance bottlenecks and optimizing simulation code to enhance TCP/IP communication for the physical crane and its digital twin.

Seasonal Advisory Intern

May 2023 - May 2023

University of Wisconsin, Madison

- Investigated innovative technological solutions to help the firm achieve a **net-zero** carbon footprint by 2030.
- Leveraged **PowerBi**, **PowerPoint**, and **Excel** to create visually compelling presentations and reports, enhancing stakeholder engagement.
- Wireframe an app using **Figma** that incentivizes sustainable travel choices by rewarding employees with redeemable points for prizes.

## PERSONAL PROJECTS

AI-Powered Support Assistant | *Next.js, JavaScript, CSS*

Aug. 2024 - Aug. 2024

- Developed an AI Support Assistant using **Next.js**, **Material-UI**, and **OpenAI API** to enhance user interaction with real-time support.
- Integrated Error Handling, loading states, real-time messaging, auto-scrolling, and multi-language support for improved usability.
- Set up the Development Environment and Deployment Pipeline with **Node.js** and **Vercel** to ensure robust and scalable application performance.

Digital Hand Pen Whiteboard | *Python*

Aug. 2023 - Apr. 2024

- Created a hand gesture recognition whiteboard using **MediaPipe**, **OpenCV**, and **Pycharm**, enabling intuitive interactions through gesture tracking.
- Participated in solution-oriented team discussions and mentor-led reviews to refine the application's functionality and user experience.
- Showcased the project's innovation and practical applications capabilities at a comprehensive poster session and the **ERSP national conference**.

Harry Potter Sorting Hat | *Python*

Jul. 2022 - Aug. 2022

- Built an interactive **game** using **Python Turtle Graphics** to simulate the Sorting Hat's house selection process based on their responses to questions.
- Developed and implemented an algorithm that analyzes and weighs user responses to determine the most suitable house placement.

## EXTRACURRICULAR

Newsletter Chair

May 2023 - May 2024

University of Wisconsin, Madison

- Published **10** newsletters bi-weekly to inform WiCS Members about upcoming programs, workshops, and initiatives to increase engagement.
- Collaborated in bi-weekly meetings, bringing innovative event ideas to cultivate a sense of community.
- Provided support in orchestrating **13** WiCS events, **3** fundraisers, and **1** woman in tech week, assisting with setup and cleanup.

Organizer

Sep. 2023 - Feb. 2024

SparkHacks

- Orchestrated a student-run **hackathon** that had **300** participants collaborate, innovate, and compete over **24** hours and a series of **4** prompts.
- Coordinated with judges on the hackathon's objectives, criteria for evaluation, and the support needed to carry out their roles effectively.
- Co-led** and managed logistics for a Mario Kart tournament with **25** participants to foster community engagement and provide a fun break.

## AWARDS

Ideathon

Apr. 2023

Code Your Dreams

- Won the **Best Community Outreach Award** for a search-enabled calendar that displays STEM events to help engage underrepresented groups.