

Erika Sy

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EDUCATION

Bachelor of Science in Computer Science

University of Wisconsin - Madison

Sep. 2024 - Expected May 2026

Madison, WI.

Coursework - Introduction to Artificial Intelligence, Introduction to Computer Engineering

Bachelor of Science in Computer Science

University of Illinois - Chicago

Aug. 2022 - May 2024

Chicago, IL.

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: Unreal Engine, React, Vercel, MediaPipe, Matplotlib

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

EXPERIENCE

Undergraduate Research Assistant

University of Wisconsin - Madison

Sep. 2024 - Present

Madison, WI.

- Engaged in a RoboCup project focusing on advancing autonomous humanoid robots through **machine** and **reinforcement learning** techniques.
- Contributing to robotic motion analysis using **SimRobot** to significantly enhance robot walking speed and agility in competitive scenarios.

Augmented Reality Development Extern

Snap Inc.

Sep. 2024 - Nov. 2024

Remote

- Made an interactive **AR lens** that supports 2 users together, featuring matching Halloween costumes to promote coordinated, themed experiences.
- Developed and tested 4 **AR** projects in **Snap's Lens Studio**, utilizing 2D/3D assets and design principles to create immersive digital stories.
- Created a final presentation highlighting the lens's matching costume feature, technical design, and potential for enhancing social interaction.

AI Software Engineering Fellow

Headstart AI

Aug. 2024 - Sep. 2024

Remote

- Engineered 5+ AI applications and APIs using **React**, **Next.js**, **OpenAI**, **Pinecone**, and **Stripe API**.
- Managed the project lifecycle from design to development, implementing MVC design patterns to ensure robust and scalable solutions.
- Received coaching from Amazon, Bloomberg, and Capital One on **Agile**, CI/CD processes, **Git** version control, and microservice architecture.

Business Technology Solutions Intern

AbbVie

May 2024 - Aug. 2024

Round Lake, IL.

- 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.

Undergraduate Research Assistant

University of Illinois - Chicago

Feb. 2024 - May 2024

Chicago, IL.

- 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

KPMG

May 2023 - May 2023

Chicago, IL.

- 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 gesture recognition whiteboard using **MediaPipe**, **OpenCV**, and **Pycharm** that enabled real-time interactions with a **90%** accuracy rate.
- 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.

LEADERSHIP

Newsletter Chair

Women in Computer Science

May 2023 - May 2024

Chicago, IL.

- 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

SparkHacks

Sep. 2023 - Feb. 2024

Chicago, IL

- 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

Code Your Dreams

Apr. 2023

Chicago, IL

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