

Erika Sy

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EDUCATION

University of Wisconsin, Madison – <i>Bachelor of Science, Computer Science</i>	Sep. 2024 - May 2026
Coursework - Introduction to Artificial Intelligence, Introduction to Computer Engineering	
University of Illinois, Chicago – <i>Bachelor of Science, Computer Science</i>	Aug. 2022 - May 2024
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: Codesys, Miniconda, Pycharm, SolidWorks, Postman, PowerBi, Figma

EXPERIENCE

Software Engineering Fellow – Headstarter	May. 2024 - Aug. 2024
<ul style="list-style-type: none">Engineered 5+ AI applications and APIs using Next.js, OpenAI, Pinecone, and Stripe API, achieving 98% accuracy. Managed the project lifecycle from design to development, implementing MVC design patterns to ensure robust and scalable solutions.Secured a position among 15,818 selected candidates from 41,803 applicants. Enhanced skills through coaching from Amazon, Bloomberg, and Capital One, focusing on Agile methodologies, CI/CD processes, Git version control, and microservice architecture.	
Business Technology Solutions Intern – AbbVie	May. 2024 - Aug. 2024
<ul style="list-style-type: none">Identify and implement automation opportunities within the ServiceNow platform to enhance efficiency and reduce operational costs.Led 8 employee workshops, utilized Spreadsheets to document 12 processes, and used Visio to map out 5 of those processes.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 – University of Illinois, Chicago	Feb. 2024 - May 2024
<ul style="list-style-type: none">Contributed to a project to develop a digital twin for managing nuclear waste, utilizing technologies such as Codesys and Unreal Engine.Enhanced the project's efficiency by optimizing the existing simulation code and improving the real-time TCP/IP communication between the physical crane operations and their digital twin representation.Examined performance bottlenecks and executes strategic code optimizations to improve the system's efficiency and safety protocol.	
Early Research Scholar – University of Illinois, Chicago	Aug. 2023 - May 2024
<ul style="list-style-type: none">Engaged in a forward-looking project to design a whiteboard application using MediaPipe, OpenCV, MiniConda, and Pycharm. The application uses hand gesture recognition via camera, allowing users to control and interact with a digital whiteboard intuitively.Participated in solution-oriented team discussions and mentor-led reviews to enhance the application's functionality and user experience.Presented research findings and demonstrated the application's capabilities in a comprehensive poster session.	
Seasonal Advisory Intern – KPMG	May 2023 - May 2023
<ul style="list-style-type: none">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	Aug. 2024 - Aug. 2024
<ul style="list-style-type: none">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 Development Environment and Deployment Pipeline with Node.js, Vercel, and testing to ensure robust and scalable application performance.	
Space Invaders Python	Aug. 2024 - Aug. 2024
<ul style="list-style-type: none">Developed a Space Invaders clone that utilizes Python and Turtle graphics to recreate the game with progressive difficulty levels.Incorporated a high scoreboard feature to track player achievements, encouraging competition and motivating continuous playability.Designed user interface with introductory and "you lose" screens to enhance the gaming experience.	
Harry Potter Sorting Hat Python	Jul. 2022 - Aug. 2022
<ul style="list-style-type: none">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 – Women in Computer Science	May 2023 - May 2024
<ul style="list-style-type: none">Crafted 10 bi-weekly newsletters 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
<ul style="list-style-type: none">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 a Mario Kart tournament with 25 participants to foster community engagement and provide a fun break.Analyzed feedback, identified areas of improvement, and implemented strategies to strengthen future events.	

AWARDS

Ideathon Participant – Code Your Dreams	Apr. 2023
<ul style="list-style-type: none">A Hack for Accessibility event with Google Chicago and Deaf Kids Code aimed at making technology more accessible and inclusive.Developed a wireframe for a website that features a dynamic calendar that employs web-based search functionality to automatically curate and display relevant STEM events, fostering greater engagement and opportunities for underrepresented groups.Awarded the Best Community Outreach Award for the application.	