Xinyue Zhang

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EDUCATION

Northwestern University – Evanston, IL   GPA: 4.0
Bachelor of Science in Computer Science   Murphy Scholar, Dean's List
Minor in Data Science and Engineering   **Anticipated Graduation: June 2025**

SKILLS

Computer Languages: Python, C++, C, JavaScript, C#, MATLAB, SQL, Java
Technologies and Platforms: GitHub, Tableau, AWS, Visual Studios, VSCode, Photoshop
Languages: Native Mandarin Chinese, Conversational Spanish

RELEVANT COURSES

- Data Structures and Algorithms
- Electronics Design
- Scalable Software Architectures
- Machine Learning
- Foundations of Data Science
- Intro to Artificial Intelligence

WORK EXPERIENCE

Summer Undergraduate Researcher   **July 2024 – September 2024**
Design, Technology, and Research, Delta Lab

- Co-led research to conceptualize models that help designers evaluate differences in machine representations of abstract human experiences across different reference systems.
- Self-directed the development of a low-tech data analysis model, aiming to bridge the gap between human concept expression and machine interpretation, and surface actionable insights for designers.
- Submitted a paper as the first author to the CHI 2025 Conference based on this research, focusing on exploring contextual differences in human experience design.

Research Assistant   **December 2023 – June 2024**
Undergraduate Research Assistant Program, IMEC Lab

- Worked hands-on to design autonomous convertible quadcopter drones with sprawling capabilities.
- Modified cameras and used free open-source libraries to implement multi-camera motion trackers, capturing the trajectory of drones.

Teaching Assistant   **September 2023 – December 2023**
Fundamentals of Computer Programming I

- Hosted office hours to help students with no prior programming experience grasp the fundamentals of Computer Science.
- Led biweekly coding exercises and discussions, simplifying core concepts such as recursion and the ethical usage of technology.
- Managed a cohort of 10 students in class, providing personalized support to help them understand and apply basic programming principles.

PROJECTS

Data Analysis Platform Integration   **September 2023 – Present**
Software Team Lead, NU Solar

- Led the integration of a data analysis system that parses CAN data, automating the data storage and processing onto AWS.
- Led the implementation of two separate visualization pipelines: one for the driver dashboard to display real-time data, and another for backend time-series analysis to support engineering diagnostics.
- Utilized SQL for efficient data querying, and Python for processing, ensuring that the platform operates across distributed systems.

Personal Website [https://xinyuezhang-shirley.github.io/]   **August 2023 – Present**

- Self-taught HTML/CSS/JS with the aid of existing HTML libraries and online documentation in 2 weeks.
- Showcases ongoing and completed coding projects, poems, and art pieces.

ACTIVITIES AND AWARDS

Chevron Corporate Scholarship	Recipient	2023-2025 Academic Years
NU Robotics	Social Chair	January 2023 – Present
NU Solar	Software Team Lead	September 2022 – Present
K-Dance	Performer	September 2023 – Present