

Christopher Miao

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Education

Masters of Science in Computer Science	May 2025
University of Minnesota Twin-Cities (GPA 3.6/4.0)	
Bachelor's of Science in Civil Engineering and minor in Computer Science	May 2023
University of Illinois Urbana-Champaign	

Technical Skills

Languages: Java, C++, Python, SQL, JavaScript,
Frameworks/Libraries: Flask, PyTorch, Transformers, NumPy, scikit-learn, React, HTML/CSS
Databases: PostgreSQL, MySQL, MongoDB
Tools: Git, GitHub, AWS, VSCode, Docker

Experiences

Engineer Intern at Village of Bolingbrook, IL	May 2023 - August 2023
<ul style="list-style-type: none">Supported senior engineers in field work and delivered CAD projects to clients	
Engineer Intern at City of Naperville, IL	May 2022 - August 2022
<ul style="list-style-type: none">Collaborated with senior engineers overseeing public construction and design updates	
Engineering Intern at Dupage County DOT	May 2019 - August 2019
<ul style="list-style-type: none">Reviewed highway permits, processing work orders, answering customer service calls, and organizing sensitive documents.	

Projects

Flashcards AI	February 2025 - May 2025
<ul style="list-style-type: none">Built a React frontend and Flask backend for handwritten note uploads and AI-driven flashcard generationFine-tuned a Flan-T5 model to generate structured Q&A flashcards from educational notes using supervised input-output pairs from a formatted Kaggle datasetIntegrated ChatGPT API to convert handwritten notes to textTools & Technologies: PyTorch, Flask, React, OpenAI API, Kaggle datasets	
PostgreSQL Modifications	January 2024 - May 2024
<ul style="list-style-type: none">Modified C++ PostgreSQL engine to test alternative page replacement strategiesCompared FIFO, LRU and MRU and forced join methods for performance benchmarkingImplemented and benchmarked B+ tree and hash indexing methodsTools & Technologies: C++, PostgreSQL	
Voting System Software Engineering Project	September 2023 - December 2023
<ul style="list-style-type: none">Developed voting system in C++ using waterfall and agile scrum methodologiesWrote doxygen tests and ran iterative improvements through mock agile sprint cyclesTools & Technologies: doxygen, C++	
Personal Project: Movie Finder	July 2023 - August 2023
<ul style="list-style-type: none">Created a website that allows user to search for different moviesConverted IMDB API into database in mysql using mysql workbench and AWSTools & Technologies: Python, Python Flask, CSS, HTML and MYSQL	