

Hansheng Liu

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EDUCATION

University of Illinois Urbana-Champaign

- Master of **Computer Science** 2024 – 2026 (*Expected*)
 - Bachelor of Science in **Computer Science & Mathematics** 2020 – 2024
- Triple major in Economics. Minor in Statistics, Computational Sci. & Engr. GPA: 3.96 / 4.00

Honors: Highest Distinction. Dean's List (7 Semesters). 2023 IGL Research Award. 2024 IML Research Award.

SKILLS

Programming Languages: C++, Python, Java, C, SQL, C#, Assembly, HTML, CSS, JavaScript, R, Ocaml

Computing & Algorithm Library: CUDA, Numpy, Scikit-learn, TensorFlow, PyTorch, Pandas

Software Development: Spring Boot, Git, MySQL, NGINX, Node.js, Gunicorn, React, Django

WORK EXPERIENCE

Amazon | *Software Development Engineer Intern* May – Aug 2025 at Seattle, WA

- Incoming Software Development Engineer Intern.

Leyan Technologies | *R&D Engineer* Jun – Aug 2024 at Shanghai, China

- Architected and developed an AI framework validation system, encompassing correctness and performance testing.
- Spearheaded the implementation of the web backend (Java), test-runner (Python), and database (MySQL).
- Engineered a scalable, decoupled front-end & back-end architecture.
- Researched integrating the newest TTS model, along with RAG, into the company's service.

Zhejiang Century Huatong Group | *Software Development Engineer* Jun – Aug 2023 at Shanghai, China

- Developed and implemented Office Automation (OA) system functions using C#, delivered and deployed all tasks on time.
- Integrated Didi Taxi (Chinese Uber) into the company APP, greatly optimized the convenience of colleagues' taxi booking and reimbursement, made it easier for the company to supervise taxi behavior.
- Wrote code to read and classify more than 1,000 charts of unorganized data into forms to facilitate inquiries by colleagues.
- Took full ownership of the database system (MySQL), ensuring data integrity, security, and optimal performance.

Illinois Mathematics Lab | *Researcher* Jan – Dec 2023 at Urbana, IL

- Wrote a simulation system in C++, used fast algorithms and multithreading, reduced more than 80% of the original runtime.
- Mined frequent patterns and applied multiple deep-learning algorithms to gain insights of the data.

Siebel School of Computing and Data Science - UIUC | *Teaching Assistant* Aug 2023 – present at Urbana, IL

- CS 450 – Numerical Analysis. CS 128 – Introduction to Computer Science II.

PROJECT HIGHLIGHTS

Chat Master | *NGINX, React, Gunicorn, Python*

- Developed an interactive chatbot utilizing the OpenAI API to enhance the conversational abilities of users.
- Engineered a distributed server using NGINX, able to handle more than 8,000 concurrent requests.

What-if Olympics | *MySQL, Python, CSS, HTML, JS, Google Cloud Platform*

- Developed a multi-paged website allowing users to search, insert, delete, and apply customized rules with over 10k records.

Chrome extension for text summarization | *Python, JS, HTML, Django*

- Created a Chrome extension that summarize the text on the webpage, save users more than 60% of their times in average.

RESEARCH & PUBLICATIONS

Topics on Length-constrained Minimum Spanning Tree ongoing

- First author. Advised by Rhea Jain & Prof. Chandra Chekuri.

COSPLAY: Chain of Summary with persistently decaying entropy in long context RAG ongoing

- First author. Advised by Prof. Jiawei Han.

Scale-free First-Passage Percolation 2023

- Student author. Mentored by Prof. Partha S. Dey.

Rumor Propagation on a Spread-out Line Graph 2023

- Student author. Mentored by Prof. Partha S. Dey.