

Baoren Liu

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🤖 RoboticReaper

Education

University of Illinois Urbana-Champaign, IL
B.S. in Mathematics and Computer Science

Sept 2025 – May 2028
GPA 3.97/4.00

Experience

Research Assistant

James Rehg Lab

January - Present
Urbana, IL

- Proposed and lead a machine learning project related to multimodal time-series human activity recognition foundational model

Research Intern

Mass General Brigham

June 2024 - Present
Boston, MA

- Integrated the hospital's electronic health record with retrieval augmented generation (RAG) pipeline to identify patients with dementia. Used Python, Ollama, Microsoft Azure, SQL, and LangChain
- Achieved 0.927 F1-score by experimenting with various RAG techniques and large language models
- Co-author on the research paper. Responsible for writing methods, results, error analysis, and supplementary information

Project Leader

Lexington Youth STEAM Team

August 2020 – May 2024
Lexington, MA

- Collaborated with the Town Celebration Committee and created a website to host the Patriots' Day virtual event during the COVID-19 pandemic in 2021. Received 200+ event photos from town residents' submissions [More](#) [↗](#)
- Revamped elementary school Parent-Teacher Association website using HTML, CSS, JavaScript, and Bootstrap [More](#) [↗](#)
- Analyzed historical grants and notice trends of the grant needs for Community Endowment of Lexington. A record total of \$57,850 was granted to nonprofits and received the most applications for the 2021 grant cycle. Used Python, Pandas, and NumPy [More](#) [↗](#)
- 400+ hours participation on CS projects to create an impact on the community [Team website](#) [↗](#)

Teaching Assistant

KTByte

September 2021 - May 2023
Lexington, MA

- Helped students with Java and Processing homework during office hours

Projects

RideList

January 2026 - Present

- Launched a comprehensive rideshare-posting and information-searching platform to reduce current communication redundancies in group-chat format when organizing rides near UIUC. Usage is similar to finding plane tickets instead of Uber
- Privacy-first features for student drivers and riders. Currently collaborating with local professional drivers for increased usage
- Made using NextJS, Mantine UI, Google Firebase, Google Cloud SQL, Microsoft Azure

Schedule Web App

July 2020 - December 2024

- Developed and launched a successful web app to address my high school's confusing schedule. Sustained and improved the app's functionality annually, ensuring a positive user experience
- 1400 registered users and 900 daily active users at the beginning of each school year
- Made using ReactJS, Material UI, and Firebase. Hosted on Netlify

Awards

- **1st Place Award** in UIUC's SIGPwny Cybersecurity Club 2025 Fall competition beginner division, and #6/131 in the whole event when ranked against advanced division. *September 21, 2025*

Skills

Languages: Proficient in Java, Python, SQL, HTML, CSS, JavaScript, Kotlin, C++. Fluent in Mandarin and English.

Tools: Firebase, Azure, Docker, MySQL, PostgreSQL, ReactJS, NextJS, Pandas, NumPy, PyTorch, LangChain, Android Studio