

# 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