# **Baoren Liu**

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in baoren-liu-a27141344

RoboticReaper

### Education

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

Sept 2025 – May 2028

Northeastern University, MA

Sept 2024 – May 2025

B.S. in Computer Science

GPA 3.97/4.00

## **Experience**

#### Project Leader

Fall 2020 - Spring 2024 Lexington, MA

Lexington Youth STEAM Team

- o 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 

  ✓
- o Revamped elementary school Parent-Teacher Association website using HTML, CSS, JavaScript, and Bootstrap. More 🗹
- o 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 

  ✓
- o 400+ hours participation on CS projects to create an impact on the community. Team website 🗹

Intern

Summer 2024 - Present

Boston, MA

Mass General Brigham

- o 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
- o Achieved 0.927 F1-score by experimenting with various RAG techniques and large language models
- o First author on the research paper

Researcher

Spring 2024 - Present

Boston, MA

Mass General Hospital

- o Proposed a framework for objectively measuring the success of chronic pain treatment through movement data
- Built React Native app to collect accelerometer movement data from patient's phone and used a transformer-based deep learning model to detect changes in patient movement. Used PyTorch

**Teaching Assistant** 

Fall 2021 - Spring 2023

Lexington, MA

**KTByte** 

o Helped students with Java and Processing homework during office hours

# **Projects**

## Schedule Web App

2020 - 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
- o Made using ReactJS, Material UI, and Firebase. Hosted on Netlify

# **Native Android App**

2019 - 2022

- Conceptualized and developed a user-friendly note app for Android that enables users to create, edit, and save notes effortlessly.
- Published and distributed to various third-party app stores using Catappult.io under the company name Hover Software. 6.7k
   downloads worldwide with a consistent user base of 30 daily users

#### **Skills**

Languages: 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