

# Hongrui Liu

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## SKILLS

Java, Python, Django, Express.js, React.js, Flutter, JavaScript, C++, Spring Boot, Spring Security, JWT, RabbitMQ, Kafka, Hibernate, MYSQL, MongoDB, PostgreSQL, Redis, Next.js, Angular, Tailwind CSS, Docker, Nginx, GCP, Firebase, AWS, RESTful API, JUnit, Kotlin, Swift

## PROFESSIONAL EXPERIENCE

### Founding Software Engineer @ Ayyats.ai, Atlanta, GA

Dec 2023 - Present

- Played a pivotal role in back-end system design and implementation, leveraging **MongoDB** for database management and **Azure Blob Storage** for cloud data storage, ensuring scalability and high availability.
- Conducted comprehensive **code reviews** and pull request evaluations, fostering a culture of excellence and collaboration, which led to more efficient integration of frontend code and significant reduction in boilerplate code.
- Led the engineering team in the development of an **AI-driven, full-stack mobile application**, using **Express.js** for the backend and **Flutter** for the frontend, **achieving significant milestones towards Techstars' fourth round** and nearing a **successful beta test** and launch.
- Instituted weekly technical **stand-up meetings**, enhancing team communication, and ensuring alignment with project goals, which contributed to the project's progression towards beta testing and eventual launch.

### Mobile Software Engineer Intern @ PadMatch LLC, Boston, MA

July 2023 – Dec 2023

- Led the **end-to-end design and launch** of a tenant-focused mobile application using the **Flutter framework**, enhancing the login process and interface in collaboration with UI/UX designers, which resulted in a **20% increase in user engagement** through improved security measures and a more intuitive user experience.
- Developed and integrated a suite of backend APIs using **Django**, facilitating critical functionalities such as **tenant login** and **maintenance request submission**. Utilized **AWS RDS PostgreSQL** for robust database management, ensuring data integrity and consistency. This backend was seamlessly connected to a **Flutter-based frontend**, enhancing the **full-stack** architecture, and contributing to a **30% uptick in process efficiency and user transaction speed**.
- Implemented a **cloud-based monitoring system** utilizing **Firebase Cloud Messaging** and **Google Cloud Functions**, automating real-time database surveillance and instant notification dispatch to tenant applications upon new message arrival, which **optimized system responsiveness and improved communication efficiency by 30%**.
- Participated in team meetings and **agile development processes**, regularly **reviewing code**, and providing constructive feedback to other team members. Utilized **Jira** for task tracking and **Confluence** for documentation, facilitating effective team collaboration and project management.
- Drove the **strategic release** of the application across **Google Store and Apple App Store**, achieving a **30% rise in stakeholder engagement** and surpassing user acquisition targets by **25% within the first quarter**, bolstering market presence and user base growth.

### Software Engineering Intern @ Chongqing Kungang Technology Co., Ltd., China

May 2021 - July 2021

- Leveraged **Spring Security**, **Spring Cloud API Gateway**, and **JWT** to establish a robust **authentication and authorization** framework, enhancing system security for employees and administrators. Post-implementation achieved a **50% faster anomaly response** and maintained **zero security breaches**.
- Led the creation of an **employee safety education module** and **risk tracking system** using **Spring Boot**, reducing safety hazards by **70%** and reinforcing the company's commitment to **safety and risk management**.
- Engineered an asynchronous confirmation system with **RabbitMQ** for video clock-in, **automating acknowledgments and improving email response times by 90%**, while handling over 100 videos daily, which boosted **user satisfaction**.
- Participated in all phases of the software development lifecycle, contributing to a project that received a **95% satisfaction rating** from stakeholders after deployment, indicating high approval of the developed solutions.

## EDUCATION

### Northeastern University, Portland, ME

Sep 2022 - Dec 2024

- Master of Science, Computer Science
- Relevant Coursework: Algorithms, Programming Design Paradigm, Mobile Application Development

### Chongqing University of Technology, Chongqing, China

Sep 2018 - Jun 2022

- Bachelor of Science, Computer Science
- Relevant Coursework: Data Structures, Database Design, Computer Networks, Operating Systems, Compilers, Computer Architecture