

# John Chu

LinkedIn: <https://www.linkedin.com/in/ruoqian-chu/>

## EDUCATION

Washington University in St. Louis | McKelvey School of Engineering

St. Louis, MO

B.S. + M.S in Computer Science

MAY 2025

- Cumulative GPA: **4.00** / 4.00 (Valedictorian, Dean's List: 2020 – 2024, Engineering Rank: **1/415**)
- Core Coursework: Advanced Algorithm | Parallel and Concurrent Programming | Computer System

## TECHNICAL SKILLS

**Programming Languages:** Java, JavaScript, C#, Swift, Python, SQL; **Framework:** Spring Boot

**Web:** HTML, React.js, CSS; **Tools:** Git, SVN, Visual Studio, IntelliJ, Jira, Confluence, Gutbucket, Postman

**CI/CD:** Amazon AWS, Docker, Jenkins; **Others:** Regex, Linux

## WORK EXPERIENCE

ByteDance | Software Engineering Intern

San Jose, CA | May 2024 – Aug 2024

- Incoming Soon...

Epic System | Software Developer Intern

Madison, IL | May 2023 – Aug 2023

- Designed a new **frontend** for hospital billing estimation workflow inside **MyChart**, a patient medical portal with **100 million+** end-users. Planning to showcase at 2023 Epic's annual user group meeting.
- Transitioned razor files to **React Typescript** and **SCSS** with **Redux** for state management, enhancing UI.
- Modified the **C#** layer for optimal **data retrieval** from the M database through **ECF** commands.

DATATOM | Software Engineer Intern

Shanghai, China | Jun 2021 - Aug 2021

- Deployed an internal tool for an agency client that generating bi-monthly statistical using **openpyxl** and **docx** library. Performed imputation and record merging for data cleansing in a **PostgreSQL** database.
- Designed a Covid-19 Monitor Dashboard, integrating **real-time** high risk city data through web-scraping with **BeautifulSoup** package and **Regex**. Conducted analysis on and risk level through gate entrance using **SQL** queries.

## PROJECTS

E-commerce Backend Flash-Sale Service | **Java Spring, SQL, Redis, RocketMQ, Docker**

Jan 2023 – Present

- Implemented a **microservice-based** e-commerce **backend** optimized for flash sale promotions, enhancing the original **SQL** master-slave structure's performance tenfold to **100,000 QPS** using **Redis** and **Message Queues**.
- Designed promotion and order microservices separately in accordance with **Domain Driven Design** principles.
- Optimized active promotions through cache preheating and **Redis**, handled peak-load pressure with asynchronous order creation through **RocketMQ**.
- Manage **Docker** containers using Docker file and shell script. Utilize **Jenkins** files for streamlined **CI/CD** pipelines.

Hotel Booking Website | **JavaScript, React, Flask, MongoDB**

Apr 2022 – May 2022

- Implemented a **Full-Stack** hotel booking website implemented with **React.js** for frontend and **Flask** for **Rest API**.
- Stored user and order information in **MongoDB** with encrypted password and payment information.
- Utilized Flask **JWT-Extended** API for session token management and **CSRF protection**.
- Launched an **ec-2 instance** with **AWS** and deployed the site onto the instance through **Apache web service**.