

LE(JOY) YU

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TECHNICAL STRENGTHS

Programming Language: Java, Python, Go, JavaScript, SQL
Framework & Tools: Spring Boot, MySQL, Redis, MongoDB, Express.js, React, Tailwind CSS, Node.js, Selenium, REST Assured, nginx, Docker, Git, Linux
Interests: Backend Development, Full-Stack Development, Distributed Systems, Database

EDUCATION

University of British Columbia *September 2023 - December 2025 (expected)*
Master of Engineering in Electrical and Computer Engineering **CGPA: 92.7%**
Related Courses: Advanced Relational Databases, Distributed Systems, Software Verification and Testing

Shanghai University *September 2018 - June 2022*
Bachelor of Engineering in Computer Science and Technology **CGPA: 3.87/4.00(Top 0.5%)**

WORK EXPERIENCE

Trip.com Group, Ltd. *June 2021 - February 2022*
Data Analyst Intern, Risk Management Department *Shanghai, China*

- Developed the backend of a stable crawler system, which includes collecting information from three different sources, web forums, mobile applications and instant message service with **Python**, **Selenium**, **Mitmproxy** and **Appium** and provides the data analysts with immediately alerts and valuable insights of the potential marketing risk
- Conducted in-depth posts analysis with Chinese Text Segmentation concepts and Apriori algorithm to filter irrelevant posts and classify collected posts, significantly reducing the number of posts visited without missing valuable information
- Created a program gathering scalper information from various crowdsourcing apps, and to solve the problem of unparseable data, designed a 5-stage **automatic image stitching algorithm**, enabling integration of screenshots while eliminating redundant portions for enhanced clarity

PROJECT EXPERIENCE

Distributed Systems Lab with Go

- Constructed a **MapReduce** framework: implemented the worker and coordinator program, with the latter responsible for task assignment and crashed worker nodes management
- Provided a Sharded Key/Value Service: Implemented **Raft** consensus algorithm to establish a replicated state system whose function includes leader election, log, and snapshots; Leveraged the system to develop a Sharded Key/Value storage service

Food Delivery Platform Backend Development

Java, SpringBoot, MySQL, Redis, Nginx, Docker, Swagger

- Built a restaurant food delivery platform enabling the restaurant owners to oversee online services and customers to place food orders
- Implemented user authentication with **JSON Web Token (JWT)**, defined an interceptor to verify the user's identity and stored user information with **ThreadLocal**
- Realized the shopping cart function based on **Redis**, optimizing performance by minimizing the token size and reducing frequent database queries
- Utilized **Spring Task** to schedule tasks for order state management, automating the cancellation of unpaid orders
- Implemented the order reminder function using **WebSocket**, enabling communication between the frontend and the backend systems

Full-Stack Booking Platform

- Developed a booking website enabling travelers to rent accommodations and local hosts to advertise their properties
- Realized the interactions and web layouts using **React** and **Tailwind CSS**
- Implemented **RESTful APIs** to handle HTTP requests and responses using **Express.js**; designed database with **MongoDB**

EXTRA-CURRICULUM

Vice President of Volunteer Management Department *January 2019 - January 2020*

- Collaborated with other members as one of the two leaders to recruit, train, and manage more than 100 volunteers in total for ACM contests hosted by Shanghai University