Ryan Zheng

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SUMMARY

Java Full-Stack Developer with expertise in Java, Spring Boot, React, Angular, microservices, and AI. Possesses exceptional communication skills, a passion for learning new technologies, and a strong sense of ownership and responsibility in delivering high-quality solutions.

EDUCATION

Syracuse University	**GPA:3.8/4**	*-Master of Computer Science*	**09.2022 - 05.2024**
Harbin Institute of Technology		*-Bachelor of Engineering*	09.2016 - 06.2020

TECHNICAL SKILLS

Languages: Java (8/11/17), JavaScript, TypeScript, Python, C/C++
Frameworks: Spring Boot, Spring MVC, Hibernate, MyBatis/Plus, React.js, Angular, Flask
Databases: MySQL, Redis, MongoDB, Elasticsearch, AWS RDS, AWS S3, Firebase, MinIO
Web: Angular, React.js, HTML, CSS, Bootstrap, jQuery, Redux, Thymeleaf, jsp
Microservices: Eureka, Nacos, OpenFeign, Gateway, Config Center, Resilience4j, Sentinel, Seata
DevOps: AWS EC2, Docker, Jenkins, Linux, Nginx
Middleware: RabbitMQ, Kafka, ELK stack, Flink, Redisson, xxl-job
Testing and tools: Git, Jira, Agile, JUnit, Postman, Mockito, Jmeter, Swagger, Maven, Gradle

WORKING EXPERIENCE

Software Engineer, *Beaconfire inc, NJ*   10/2024 – Current

• Managed points, products, orders module within the marketing microservice. Participated in **system design**, API development using **Spring Cloud, Spring Boot, Hibernate, AWS**, and **React.**

• Designed an authentication service using **Spring Security**, supporting login via username-password, mobile/email verification code, and Google **OAuth2.**

• Implemented search using **Elasticsearch**, designed indices, used **Flink** to Sync **AWS RDS** and **Elasticsearch**, and built an **ELK** log platform to aggregate and retrieve logs of microservices.

• Used **WebSocket** to enable real-time conversations between consumers and customer service.

• Developed CD process with **Jenkins** and **Docker**, cutting time by **50%** and downtime by **30%**

PROJECTS

News Platform

• Developed an news application, including code, mock testing, and stress testing, using **Spring Boot, Hibernate, SpringMVC, SpringCloud, Jmeter, Mockito, Apifox** and **Angular**.

• Implemented **delayed order closing, payment callbacks, and storage of statistical data** with **RabbitMQ**.

• Used **xxl-job** to perform scheduled calculations based on user behavior data and stored popular data in **Redis.**

• Used **Kafka Stream** to compute real-time data and update **Redis** and **Elasticsearch** for trending data searches.

• Designed appropriate rate-limiting rules and fallbacks, including **Resilience4j** for microservice rate limiting and **Redis**-based user behavior rate limiting.

Short Url Management System

• Developed a url management platform using **Spring Boot**, including four **microservices** interconnected via **OpenFeign** and **Eureka.** Deployed in **AWS EC2** and data stored in **AWS RDS**.

• Utilized **MySQL** for storing various tables of data, employed **horizontal table partitioning** to ensure SQL query efficiency, and added **routing tables** to prevent cross-shard queries.

• Used **Redis** as a caching middleware, applied **Bloom Filters** and **distributed locks** to solve cache penetration and cache breakdown. Achieved consistency between **MySQL** and **Redis** by Capturing **BinLog** Changes using **Flink**.

Face Recognition App

• Preprocess dataset using **OpenCV**, then using **PCA** model to find principal components of face image.

• Train **SVM** machine learning model to find the best parameters, then using **pickle** to save the model.

• Create RESTful API in **Flask** and incorporate pretrained SVM models and processing function, to provide accurate predictions for user-uploaded photos in real-time.