ROSHAN JACOB MANOJ

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Summary

Software Engineer with over 1 year of experience delivering enterprise scalable applications. Proven expertise in creating critical distributed systems such as a trading platform leveraging React, Redux, and Spring Boot, and a highly distributed search engine integrating Elasticsearch Kibana stack with FastAPI. Notable achievements include automating reporting times from hours to milliseconds and implementing CI/CD pipelines as a DevOps Engineer. Looking to leverage development expertise in feature design, implementation, and optimization to meet user requirements and improve product performance.

Skills

Languages: Java, Go, Python, JavaScript, HTML, CSS
Frameworks and Libraries: Spring Boot, FastAPI, Flask, React, Redux, Axios
Tools and Technology: AWS (EC2, S3, SQS, Lambda, SNS), Elasticsearch, Docker, SQL, NoSQL Databases, Building services at scale
Foundational Knowledge: Data Structures, Algorithms, Debugging, Operating Systems, Distributed Systems, File-Systems, Storage

Work Experience

Lumen Technology **Remote, USA**
Software Engineer May 2024 - Present

- Engineered a resilient, **Elasticsearch Kibana** system integrated with an asynchronous **FastAPI** server and React UI to search across MongoDB documents, Swagger pages, MAL entries and network workflows, significantly outperforming initial response time targets.
- Developed and implemented a highly distributed search engine with **Docker** and leveraging asynchronous programming and advanced storage techniques to maintain **sub-5ms response time across over 10k documents**.

Lumen Technology **Tempe, AZ, USA**
DevOps Engineer Intern Jun 2023 - May 2024

- Enhanced API gateway portal's security by implementing Access Control Lists, JWT authentication, and Role-Based Authorization using **Spring Security** framework, improving overall system security and aligning with established design practices.
- Extended portal functionalities to include LDAP integration, automated admin approval for access requests leveraging **Spring Boot**, Spring Mail and **Java Server Pages** (JSP), **reducing manual approvals by 60%**. This contributed to breaking down larger work items into smaller work items effectively.
- Automated reporting of network service outages and changes to clients by developing APIs in Spring Boot, reducing manual reporting time from 1-2 hours to just **400ms per update**, showcasing strengths in building services at scale and debugging.

Standard Chartered Bank **Bengaluru, India**
Software Engineer Aug 2021 - Jul 2022

- Implemented a **cloud-native** responsive web application using **React, Redux**, Spring Boot, and MySQL enabling trading of commodities, FX rate exchange, payments, and multi-lingual support, enhancing user experience.
- Created CI/CD architecture using Jenkins pipeline and Ansible playbook scripts integrated with OpenShift automating deployments reducing deployment time to 40 seconds.
- Integrated Hashicorp vault with 30+ microservice architectures for DB connectivity, improving security and efficiency.
- Leveraged SQL query optimizations, JPA specifications and criteria builder to reduce **API response times to 450ms** from 3s.

Projects

AWS - Face Recognition Mar 2024 - Apr 2024

- Crafted a multi-tiered **Go** web service deployed on **AWS EC2** instances, facilitating image submissions from clients and returning responses identifying recognized faces.
- Achieved 30% performance improvement through auto-scaling of app tier with a **custom web scheduler** built into web tier.
- Reduced latency by 50% for high-volume workloads using **SQS queues** for asynchronous communication between service tiers.
- Implemented a scalable **Pytorch** pipeline with pre-trained CNN models for image processing, storing results securely in **S3 buckets**.

Education

Arizona State University **Tempe, AZ**
Master of Science in Computer Science Aug 2022 - May 2024
Distinction (4.0 CGPA)

Manipal Institute of Technology **Manipal, India**
Bachelor of Technology in Computer Science and Engineering Jul 2017 - Jul 2021