SHUBHAM RANA

Senior Software Engineer

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PROFESSIONAL SUMMARY

Senior Engineer with 8 years of experience architecting microservices and enterprise applications with focus on healthcare and technology services. Currently working as a Backend Engineer designing API gateway solutions for production environments. Proven expertise in cloud-native technologies, containerization, and distributed systems. Technical leader skilled in interfacing with senior stakeholders and making critical architectural decisions in collaborative environments. Demonstrated experience in agile environments with API security, caching strategies, and message queue implementations.

TECHNICAL SKILLS

Programming Languages: Java 8/17/21/22 (Expert), Python, Vue.js, GoLang

Cloud & Infrastructure: AWS, GCP, Docker, Kubernetes, Helm, Kafka, Elasticsearch

Databases & Caching: MySQL, PostgreSQL, Cosmos DB, Redis, Memcache

API & Security: RESTful APIs, OAuth 2.0, JWT, API Gateway

Frameworks & Tools: Spring Boot, Spring WebFlux, Spring Framework, FastAPI, Dropwizard, Jenkins, Git, Maven, Splunk

AI/ML Libraries: scikit-learn, pandas, numpy, matplotlib

Architecture: Microservices, Event-Driven Architecture, CI/CD Pipelines, Linux

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PROFESSIONAL EXPERIENCE

Apertum Online Limited (Remote) | Backend Engineer (Technical Consultant)

October 2025 - Present

- Designed and implemented internal API gateway service using Spring Cloud Gateway for enhanced security and auditability of internal endpoints

- Containerized Java projects using Docker, enabling consistent local development environments and streamlined deployment processes

- Architecting and developing API gateway for developer API management in production environment

- Implementing whitelisting and blacklisting mechanisms for API access control and security enforcement

- Contributing to backend infrastructure improvements and API security frameworks in a weekend consulting capacity

Walmart Labs | Senior Software Engineer

June 2020 - October 2025

- Led development teams through full SDLC for microservices in an agile environment, reducing order processing time by 20%

- Architected high-throughput event tracking system using Kafka, processing 2,500 events/sec with zero consumer lag

- Implemented OAuth 2.0 and JWT authentication for secure API access with proper user access control

- Designed optimized caching strategies using Redis and Memcache, reducing database load by 35%

- Led Java 8 to Java 21 migration, improving performance and security posture

- Engineered scalable data solutions with Kafka Batch Listeners and Cosmos DB, handling 3x peak loads

- Led migration to Helm Chart deployments, resulting in fully automated CI/CD pipeline with 50% faster deployments

- Implemented and maintained Docker containers and Kubernetes deployments for consistent delivery

- Spearheaded payment service refactoring using SOLID principles, improving maintainability by 40%

- Designed fault-tolerant, high-availability services processing 50,000+ orders daily with 99.9% reliability

Halodoc | SDE II

April 2019 - June 2020

- Architected high-performance backend microservices and RESTful APIs for healthcare platform serving millions

- Implemented Redis caching layer, improving API response times by 45%

- Developed security framework using JWT tokens for secure patient data access across microservices

- Led Elasticsearch performance optimization, reducing query response time by 65%

- Designed appointment microservice with slot booking functionality, increasing throughput by 30%

- Collaborated with cross-functional teams in agile environment to deliver scalable healthcare solutions

NextGen HealthCare | Engineer I

November 2017 - April 2019

- Developed features for J2EE and Spring Boot applications in enterprise healthcare environment

- Created front-end dashboards using Vue.js to visualize key healthcare metrics

- Implemented OAuth 2.0 authentication for secure access to patient records

- Developed Bash scripts for system automation and client data retrieval

- Maintained SOAP HTTP protocol compliance for integration with US Federal Service

- Implemented backend services ensuring HIPAA compliance and data security

Recent AI Project | Personal Initiative

December 2024

- Architected and developed a healthcare content recommendation system using microservices architecture with Java 22 Spring Boot backend and Python FastAPI recommendation engine

- Implemented text-based tokenization and ML algorithms using scikit-learn, pandas, and numpy for content similarity analysis

- Built reactive RESTful APIs using Spring WebFlux for real-time content recommendations integrated with PostgreSQL

- Designed decoupled architecture enabling independent scaling of AI recommendation engine and content management services

EDUCATION

B.Tech (Computer Science) - Delhi University (2017) - 83.97%

12th Class - DAV Public School - CBSE (2013) - 90%

10th Class - DAV Public School - CBSE (2011) - 95%