Vraj Shah

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Professional Summary

Software Engineer with 2+ years of experience building and optimizing scalable, high-performance backend systems. Proficient in Java, Kotlin, Python, Spring Boot, and Node.js, with expertise in distributed systems, RESTful APIs, microservices architecture, and cloud infrastructure (AWS, Kubernetes, Docker). Strong problem-solver with a deep understanding of system design, performance tuning, and fault-tolerant backend services. Currently pursuing a Master's in Applied Computer Science at Dalhousie University, focusing on backend system scalability and cloud computing.

Technical Skills

Backend Development: Java, Kotlin, Python, Spring Boot, Node.js, Microservices, RESTful APIs

Cloud & DevOps: AWS (EC2, S3, Lambda, IAM), Azure, Kubernetes, Docker, CI/CD (GitHub Actions, GitLab CI)

Databases: PostgreSQL, MySQL, MongoDB, Firebase

System Design & Performance: Scalable Architecture, Distributed Systems, Fault Tolerance, API Optimization

Other: Git, Postman, Agile Methodologies, Debugging & Performance Optimization

Soft skills: Strong communication, Problem solving, Teamwork and collaboration, Interpersonal skills, Attention to detail, Critical thinking, Innovation, Ability to learn continuously, Task Management

Work Experience

Simform Solutions **Dec 2021 - Nov 2023**

Software Engineer *Ahmedabad, India*

- Scaled backend systems to handle 5M+ API requests per day, improving request handling efficiency by 40% through optimized caching and database indexing.
- Reduced API response times by 60% by refactoring backend logic, implementing asynchronous processing, and optimizing database queries, improving user experience for high-traffic applications.
- Led the migration of monolithic services to microservices architecture, improving system scalability and reducing downtime by 45%.
- Developed and deployed a fault-tolerant, high-availability system, ensuring 99.98% uptime by leveraging Kubernetes-based auto-scaling and distributed load balancing.
- Reduced deployment failures by 50% by designing CI/CD pipelines (GitHub Actions), automating build, test, and deployment workflows.
- Refactored legacy backend codebases, implementing best practices in system design and modularization, leading to 30% faster feature development.
- Optimized PostgreSQL queries, reducing database load by 35% and improving response times for critical services.
- Collaborated with cross-functional teams, improving feature delivery efficiency by 30% through effective sprint planning and backlog prioritization.
- Integrated logging and monitoring (Prometheus, Grafana, ELK Stack), reducing mean time to resolution (MTTR) by 50% and improving system observability.
- Designed and enforced API rate limiting mechanisms, reducing service abuse and maintaining system stability under heavy traffic.

Education

Dalhousie University **Jan 2024 - Sep 2025**

Master of Applied Computer Science (Co-op Candidate) — ***GPA: 4.07/4.3*** *Halifax, Canada*

Charusat University **Jun 2018 - Apr 2022**

Bachelor of Computer Engineering — ***GPA: 8.7/10*** *Gujarat, India*

Projects

ServiceHub | *Source Code* **ReactJS | Spring Boot (JAVA) | MySQL**

- Designed and built a scalable web application for service providers and requesters, integrating e-signed contracts and feedback systems, resulting in a 20% increase in user engagement by enhancing user trust and interaction flow.
- Applied Object-Oriented Programming principles (e.g., classes, objects, inheritance) to design modular and reusable code for the backend, ensuring maintainability and scalability.
- Architected backend using Java Spring Boot and integrated it with a ReactJS frontend, achieving 99.9% uptime and enabling seamless real-time interactions among over 1,000 active users.
- Enhanced system security by implementing JWT-based authentication and role-based access control (RBAC), reducing unauthorized access incidents by 30%.

K8s Microservices | *Source Code* **Spring Boot (Kotlin) | Kubernetes | Docker | CloudBuild**

- Implemented Kubernetes-based microservices architecture, creating a highly available system with two Spring Boot containers, ensuring secure communication and fault tolerance between services.
- Deployed microservices using Kubernetes and automated deployment processes with CloudBuild, improving deployment speed and scalability by 40%.
- Worked with Docker containers to facilitate easy application deployment, increasing the speed of testing and production cycles while ensuring a consistent environment across development and production.