Vraj Shah

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Professional Summary

Result-oriented software engineer with a strong background in backend development, system integration, and cloud-based solutions. Experienced in designing scalable RESTful APIs, optimizing system interoperability, and automating cloud deployments. Passionate about leveraging AI-powered solutions and cloud-native microservices to enhance efficiency. Currently seeking a co-op opportunity at ApplyBoard to apply expertise in backend integration and microservices architecture.

Technical Skills

Programming Languages: JavaScript, TypeScript, Java, Kotlin, Swift, Python

Backend Development: Node.js, Spring Boot (Java/Kotlin), REST APIs, Python (ETL, Data Processing)

Frontend Development: ReactJS, Angular, HTML5, CSS3, Bootstrap, TailwindCSS

Databases: MySQL, MongoDB, SQLite, PostgreSQL

Cloud & DevOps: AWS (Lambda functions, CloudWatch), GCP, Firebase, Docker, Kubernetes, CI/CD pipeline

Testing & Version Control: JUnit, Mockito, Espresso, Cypress, Postman (API Testing), Git (GitHub, GitLab)

Concepts & Tools: System Integration, Data Pipelines (CSV, JSON), Observability (CloudWatch), Agile Kanban

Soft skills: Strong communication, Problem solving, Teamwork and collaboration, Observability, Analytical, Critical thinking, Self-motivated, Ability to learn continuously

Work Experience

Simform Solutions **Dec 2021 - Nov 2023**

Software Engineer *Ahmedabad, India*

- Enhanced API performance by implementing optimized query handling and caching, reducing response times by 35%, leading to faster data retrieval and improved user experience.
- Optimized database query performance using MySQL indexing strategies, PostgreSQL query optimizations, and MongoDB aggregation pipelines, reducing latency by 30%.
- Automated deployments by developing CI/CD pipelines with GitHub Actions and GitLab CI, reducing production deployment time by 50%, increasing release efficiency, and minimizing manual interventions.
- Lowered infrastructure costs by 20% by monitoring application performance with AWS CloudWatch and optimizing server-side processing, resulting in better resource utilization.
- Improved system reliability by debugging and resolving production issues using log analysis and tracing, ensuring higher uptime and minimal service interruptions.
- Enhanced code reliability by writing unit and integration tests using JUnit, Mockito, and Espresso, increasing test coverage by 60%, which led to fewer production defects and smoother releases.
- Designed and optimized data pipelines by handling structured and unstructured data (CSV, JSON, REST APIs), reducing processing overhead by 40%.
- Refactored legacy codebases by resolving technical debt and restructuring modules, leading to 40% fewer bugs and enhanced maintainability.
- Worked in an Agile Kanban environment by collaborating with cross-functional teams, delivering iterative software updates with continuous integration and testing.

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

Minimalistic HTTP Server with Node.js **JavaScript (Node.js) | REST API | System Integration**

- Developed a lightweight HTTP server by implementing custom request handling, routing, and response management, enabling efficient server-client communication via RESTful APIs.
- Improved API response times by 25% by optimizing asynchronous processing and request handling, leading to faster data delivery and improved system performance.
- Ensured API reliability by testing endpoints using Postman, identifying and fixing potential request failures before deployment.

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

- Developed a scalable web application using ReactJS, implementing modular UI components for a seamless user experience. Integrated lazy loading and performance optimizations, reducing page load time by 40%.
- 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.

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.