Vraj Shah

Professional Summary

Enthusiastic and results-driven software engineer with a strong foundation in backend development, cloud infrastructure, and DevOps practices. Experienced in designing and deploying scalable microservices, optimizing backend performance, and implementing automated CI/CD pipelines. Proficient in Python, Flask, Kubernetes, AWS, and PostgreSQL, with a focus on high-performance and reliable software solutions. Passionate about collaborating with cross-functional teams to build innovative systems and contributing to mission-critical projects. Currently pursuing a Master's in Applied Computer Science and seeking to apply my skills to drive impactful solutions in satellite network infrastructure and mission control software.

Skills

Programming Languages: Python, Go, Kotlin, Java, JavaScript, TypeScript, SQL, C++, C#

Web & Backend Development: Flask, FastAPI, Spring Boot, Node.js, RESTful APIs, Microservices, Web Application Frameworks

Cloud & Infrastructure: AWS, Azure (DevOps), Kubernetes, Docker

DevOps & CI/CD: GitHub Actions, GitLab CI, Jenkins, Infrastructure-as-Code (Terraform, Ansible)

Database Management: PostgreSQL, MySQL, Firebase Firestore

Software Development Practices: Agile (Scrum), Test-Driven Development (TDD), System Design, UI/UX Design, Code reviews

Soft skills: Strong communication, Problem solving, Teamwork and collaboration, Adaptability, Attention to detail, Critical thinking, Time management, Ability to learn continuously

Work Experience

Simform Solutions Dec 2021 - Nov 2023

 $Software\ Engineer$

Ahmedabad, India

- Optimized backend performance by refactoring Python and Java microservices, improving API response times by 35% and reducing infrastructure costs by 20%.
- Developed RESTful APIs using Flask and FastAPI, handling 10,000+ requests per second, enabling seamless communication between distributed services.
- \bullet Implemented CI/CD pipelines using GitHub Actions and GitLab CI, reducing deployment time by 50% and increasing release reliability.
- Designed scalable cloud infrastructure using AWS services (EC2, Lambda, SQS, DynamoDB), achieving 99.9% uptime for mission-critical applications.
- Enhanced system monitoring with CloudWatch and Prometheus, proactively detecting and resolving infrastructure issues, reducing downtime by 20%.
- \bullet Led cross-functional teams in Agile environments, improving software delivery efficiency by 30% through sprint planning and retrospectives.
- Developed automated test suites using PyTest and JUnit, increasing test coverage to 85%, reducing production bugs by 70%.

Education

Dalhousie University

Charusat University

Jan 2024 - Sep 2025

Master of Applied Computer Science (Co-op Candidate) | GPA: 4.07/4.3

Halifax, Canada Jun 2018 - Apr 2022

Bachelor of Computer Engineering | GPA: 8.7/10

Gujarat, India

Projects

RESTful User Management API

Flask | REST API | PostgreSQL | Docker

- Developed a scalable REST API using Flask for user authentication and management, improving API response times by 40%.
- Implemented role-based access control (RBAC) with JWT authentication, enhancing security and reducing unauthorized access incidents by 30%.
- Optimized database queries in PostgreSQL, reducing query execution time by 50%, ensuring efficient data retrieval.
- Containerized the application using Docker, enabling seamless deployment across various environments, reducing setup time by 60%.

ServiceHub (AWS Infrastructure Automation) | Source Code

AWS Services

- 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.
- Designed a scalable infrastructure with EC2 Auto Scaling Groups (ASG), Elastic Load Balancer (ALB), and Amazon DynamoDB for high availability and fault tolerance.
- Automated infrastructure provisioning and deployment using AWS CloudFormation, ensuring consistent and repeatable cloud environments, reducing deployment time by 50%.

K8s Microservices | Source Code

Spring Boot (Kotlin) | Kubernetes | Docker | CloudBuild

- Designed a **Kubernetes-based microservices architecture** with Spring Boot containers, ensuring secure communication and fault tolerance, **leading to a 99.9% uptime rate**.
- Deployed microservices using Kubernetes and automated deployment processes with CloudBuild, accelerating deployment speed and scalability by 40%.
- Utilized **Docker containers** to standardize application environments across development and production, **reducing deployment inconsistencies by 35%** and increasing testing efficiency.