Vraj Shah

Professional Summary

Master's student with experience in DevOps, cloud automation, and mobile application and its back-end integration. Skilled in Android/iOS app development and support, CI/CD pipelines, and automated mobile testing. Strong knowledge of AWS, Kubernetes, and infrastructure as code.

Technical Skills

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

Software Development: Distributed systems, microservices, real-time data processing

DevOps & CI/CD: Kubernetes, Docker, Terraform, AWS (Lambda, S3, IAM), GitHub Actions, Jenkins, GitLab CI

Testing & Debugging: System troubleshooting, automated testing (pytest, Espresso, Selenium), performance profiling

Backend & API Development: Spring Boot, REST APIs, GraphQL, Firebase, database optimization

Version Control & Agile: Git, Git Flow, Agile (Scrum), TDD

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

- Developed and optimized distributed backend services using C++ and Python, reducing response time by 40% through efficient API design and caching strategies.
- Enhanced system reliability by designing fault-tolerant architectures and troubleshooting system-level issues, decreasing downtime by 30%.
- Automated infrastructure provisioning with Terraform and Ansible, reducing deployment time by 40% and improving system consistency.
- Developed high-performance data acquisition modules for mobile applications, enabling seamless real-time data synchronization across devices.
- Integrated multiple hardware instruments with backend services, ensuring accurate data collection and improving system efficiency.
- Worked directly with users and field personnel to gather requirements and implement software solutions, improving workflow efficiency by 20%.
- \bullet Designed operator interfaces for data readiness and diagnostics, reducing error rates by 35% through user-friendly UI enhancements.
- Created and maintained CI/CD pipelines for mobile and backend services, integrating automated testing, reducing deployment failures by 25%.
- \bullet Implemented a logging and monitoring framework using AWS CloudWatch and Prometheus, improving issue detection and resolution speed by 50%.
- Optimized memory and CPU usage of backend services using performance profiling tools, reducing infrastructure costs by
- Developed automated unit and integration tests for critical backend components, increasing code coverage by 60% and reducing post-deployment bugs.

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

Distributed Data Pipeline

C++ | Python | Kubernetes | AWS

- \bullet Designed and developed a high-performance distributed data acquisition system, improving data collection speed by 50%
- Integrated multiple data sources into a unified platform, ensuring real-time synchronization and reducing data inconsistencies by 30%.
- \bullet Implemented fault-tolerant data pipelines using Kubernetes and AWS Lambda, ensuring 99.9% uptime.
- Developed a robust failover mechanism to prevent data loss during network failures, increasing system resilience.

CI/CD for Data processing workflows

Jenkins | GitHub Actions | Terraform

- Developed a CI/CD pipeline for a distributed data acquisition platform, reducing release cycle time by 40%.
- Automated system monitoring and logging using AWS CloudWatch and Prometheus, improving proactive issue resolution.
- Integrated security checks in CI/CD pipelines, ensuring compliance with industry standards and reducing vulnerabilities by 35%.

${\bf Automated~System~Trouble shooting~Toolkit}$

Python | Bash | Linux

- \bullet Created a trouble shooting toolkit for system diagnostics, reducing debugging time by 50% through automated log analysis and error detection.
- Developed scripts for automated software updates, ensuring consistent deployments across multiple environments.
- Implemented predictive analytics on log data, proactively identifying potential system failures before they occurred.