Shivam Rana

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Summary:

Dynamic **Cloud and DevOps Engineer** specializing in scalable cloud architectures, CI/CD automation, and infrastructure modernization. Proven leader in delivering high-availability solutions and driving innovation at **Barclays** and beyond.

Work Experience / Skills:

Barclays. -- New Jersey, DevOps Principal Engineer, June 2021 to Current

Project: Next Gen Settlement System - Investment Banking

Summary: Designed and deployed the Next Gen Settlement System, modernizing the bank's infrastructure with a scalable, **containerized architecture**. **Automated CI/CD for 25+ microservices**, enabled **zero-downtime deployments** across data centers, and validated disaster recovery to enhance reliability and operational resilience.

- Onboarded system accounts and linked them to their respective environments.
- Designed and implemented CI/CD pipelines using GitLab for building and deploying over 25 micro-services onto a container platform.
- Orchestrated the setup of all environments (Development, UAT, SIT, and Production), ensuring robust and efficient infrastructure.
- Working with multiple cross-functional programs, in collaboration with technical teams (including product, engineering, UI/UX, etc), that focus on building a scalable, reliable, and secure infrastructure foundation
- Crafted YAML configuration & Docker files for the RedHat Openshift Kubernetes cluster.
- Established clusters across data centers in an active-passive setup.
- Integrated and configured monitoring tools like AppDynamics, Kibana, and ITRS.
- Developed two micro-services from scratch to act as trade consumers.
- Implemented health checks for the services.
- Conducted disaster recovery drills, intentionally taking down production environments to test and validate RTO/RPO objectives.

Project: Decommissioning Collateral Management System - Investment Banking

Summary: Successfully **led the complete decommissioning** of the legacy Collateral Management System with **zero production impact**, achieving full transition to modern services. Delivered measurable improvements in **code quality, test automation, and release reliability**, and demonstrated **strong leadership and execution ownership** throughout the project lifecycle.

- Eliminating technical debt before decommissioning the system.

- Formulated a comprehensive technical strategy for the decommissioning timeline and consistently updated senior management on progress.
- Integrated five new services utilizing best DevOps practices to replace the legacy system.
- Integrated SonarQube and Jenkins into the application workflow, ensuring 90% test coverage with comprehensive test cases.
- Created a release plan and collaborated with the production team & ensured a successful deployment.

Project: Cash Payment Processor - Investment Banking

Summary: Successfully **delivered a fully automated, observable, and resilient payment processing platform**, achieving **100% CI/CD adoption** across applications and **zero downtime during OS and middleware upgrades**. Improved platform reliability, reduced manual deployment time by over **60%**, and established a **scalable DevOps foundation** that continues to support business-critical payment operations.

- Designed and implemented end-to-end CI/CD pipelines using Jenkins, enabling automated build, test, and deployment workflows for multiple applications.
- Integrated and configured ELK Stack (Elasticsearch, Logstash, Kibana) to enhance system observability and improve proactive monitoring capabilities.
- Deployed Netprobe/ITRS for real-time monitoring of infrastructure and application resources, ensuring high availability and performance.
- Developed and executed a comprehensive automation strategy using Chef to facilitate the RHEL 7 to RHEL 8 operating system upgrade across environments.
- Automated the upgrade of Apache Tomcat from version 7 to 9 as part of the project's technical debt reduction initiative, leveraging Chef for configuration management.

Moksa Technologies Inc. -- New Jersey, Software Engineer, April 2018 to June 2021

Project: Official Career Website on AWS using Terraform - Corporate & Investment Banking

Summary: Successfully designed and deployed a scalable, secure AWS-hosted Career Website using Terraform, achieving 100% uptime and seamless scalability. Contributed to the end-to-end cloud implementation and helped establish a best-in-class AWS framework later adopted as a model for future enterprise projects.

- Developed a comprehensive 3-Tier Architecture plan and secured approval from the CEO.
- Designed and Configured VPC for high availability and fault tolerance clusters with public and private subnets to host the infrastructure.
- Set Up Internet, NAT Gateways, Route Tables for public and private subents respectively ensure proper traffic routing.
- Configured clusters across data centers in an active-passive architecture.
- Translate strategic goals into executable roadmaps and drive execution, aligning engineers, PMs, and practitioners across multiple orgs and domains.
- Deployed Web Tier in public subnets and configured Load Balancer for traffic landing zone.
- Deployed Application & DB Tier in private subnets and set up an Auto Scaling Group for demand-based scaling.
- Set Up DNS and Domain using Route 53 for domain management and traffic routing to the Landing Zone/Load Balancers.
- Implemented Monitoring and Logging: Deployed Amazon CloudWatch for monitoring and logging across all tiers.
- Hands-on approach to dive into logs and whiteboard solution paths.

Project: Contact Center Solution - Health Care

Summary: Contributed to the successful delivery and stability of a mission-critical healthcare contact center platform by engineering and testing core call routing solutions. Ensured system reliability through proactive monitoring, efficient incident resolution, and seamless production releases, significantly improving platform performance and customer experience.

- Engineered and developed an advanced contact center call routing solution utilizing Java.
- Conducted rigorous software testing with Postman to ensure reliability and optimal performance.
- Delivered level 3 support to the production control team, addressing customer-raised incidents efficiently.
- Monitored the system for critical alerts, promptly resolving potential failures to maintain system integrity.
- Provided support during production releases, ensuring seamless transitions and minimal disruptions.
- Participated in War-Room calls, meticulously documented meeting minutes, and kept senior management informed.
- Knowledge of Public Cloud architectures, configurations, services, and solutions (Amazon Web Services Cloud Formation, EC2, ELB, S3, ASG, Cloudwatch, Cloud Formation)
- Experience leveraging and managing CI/CD toolchain products like Jira, STASH, Git, Bitbucket, Artifactory, SonarQube, Confluence, and Jenkins

Skills Set:
Languages: C, C++, Java, JavaScript, HTML Python, Spring Boot/Framework
Databases: MySQL, Postgres, Oracle 11g XE
Cloud: AWS, GCP, Azure, Oracle
Tools: Splunk, Grafana, Terraform, Ansible, Nagios, Dynatrace,ELK(Kibana)
Protocols: TCP/IP, SIP Server, HTTP
Operating Systems: Windows Server, Linux

Education:
Professional Certification, Cloud & DevOps, September 2024
Massachusetts Institute of Technology, USA
Master of Science, Computer Science, December 2017
California State University, Fullerton, USA
Bachelor of Engineering, Computer Science, July 2015
Visvesvaraya Technological University, India

Certifications:
AWS Solutions Architect-Associate, Google-Associate Cloud Engineer, Oracle Cloud Associate, DataBricks GenAI, HashiCorp Certified: Terraform Associate