**Nikith Reddy**

**Sr. Cloud/DevOps Engineer**
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**Summary:**

Skilled Cloud and DevOps Engineer with 10+ years of hands-on experience in leveraging latest technologies, techniques, and procedures to build world-class CI/CD pipelines, utilize Infrastructure as Code, and implement advanced deployment techniques on Azure, AWS, and GCP.

Experienced in designing Azure and AWS cloud models for IaaS, PaaS, and SaaS. Competent in server and application migration from on-prem to cloud, securing and monitoring them using different monitoring and logging tools. Proficient in scripting languages including Shell scripting, Python, and Java for automation and troubleshooting tasks.

**Certifications:**

* Certified AWS Solution Architect Associate
* Microsoft Certified Azure Fundamentals

**Technical Skills**

* **Operating Systems:** Unix, Linux, RHEL (7.x, 8.x), CentOS7, Ubuntu, Windows
* **Configuration Management and Containerization Tools:** Docker, Vagrant, Power BI, Puppet, Chef, Ansible, Terraform
* **Cloud Technologies:** Azure, AWS, GCP
* **Build Tools:** Maven, Ant, Apache Kafka, Gradle
* **Artifact Repositories:** NexusIQ, JFrog, Docker Hub
* **Scripting Languages:** SQL, Golang, Bash, Shell, Perl, Groovy, Python, PowerShell, JavaScript
* **Databases:** Oracle, MySQL, MSSQL, MongoDB, Cassandra, Redis, Postgres DB, RDS, Aurora, DynamoDB
* **Web Servers:** Tomcat, Web Logic, Apache, Web Sphere, JBoss, Nginx
* **Continuous Integration/Deployment:** ADO, Jenkins, Bamboo, Gitlab CI, Bitbucket pipelines
* **Continuous Monitoring Tools:** Nagios, New Relic, Prometheus, Splunk, Elasticsearch-Logstash-Kibana (ELK), Grafana
* **Container Orchestration Tools:** Kubernetes, Amazon ECS, OpenShift, Docker Swarm
* **Version Control:** GitHub, GitLab, Bitbucket, SVN
* **Code Quality/Coverage Tools:** SonarQube
* **Change Management Tools:** JIRA, ServiceNow
* **Programming Languages:** C, C#, C++, .Net, Java, Scala, JavaScript

**Professional Experience**

**Capital One, Richmond, VA**

**Sr. Cloud/DevOps Engineer** April 2023 – Present

* Configured and provisioned various azure services including Virtual Machines, Storage accounts, App Services, Key Vault, Virtual Networks, Azure SQL Database, Azure Search, Azure Data Lake, Azure Data Factory, Azure Blob Storage, and Azure Service Bus, ensuring optimal performance and security.
* Set up Azure Monitor Dashboard for various Azure Services by enabling Diagnostic settings and writing queries in Log Analytics Workspace to send logs to Azure storage accounts and stream logs to Azure Event Hubs for centralized logging and monitoring.
* Managed and optimized Red Hat Enterprise Linux (RHEL) environments, ensuring system stability and performance. Developed automation scripts in Python to streamline operational tasks and deployments. And integrated with vCenter API for efficient virtualization management and automated VM provisioning.
* Transferred data from On-Premises SQL Database servers to Azure SQL Database servers via Azure Data Factory Pipelines, ensuring data integrity and seamless data migration. Used Azure Kubernetes Service (AKS) to deploy and manage a managed Kubernetes cluster in Azure, creating an AKS cluster in the Azure portal using template-driven deployment options with Azure Resource Manager (ARM) templates.
* Implemented Jenkins pipelines into Azure pipelines to drive all microservices builds to the Docker registry and then deployed them to Kubernetes, creating and managing Pods for enhanced application scalability.
* Built data pipelines using Azure Data Factory and Azure Databricks, loading data to Azure Data Lake and Azure SQL Database, ensuring efficient data processing and storage. Configured Grafana alerting rules and notifications to ensure timely awareness of the critical system events, and integrating with the tools like slack, email for effective incident management.
* Managed SQL database security including role-based access control, data masking, and auditing to ensure compliance with data protection regulations. Developed automated unit and integration tests for C# applications, improving test coverage and reliability, and automated the build process using Azure DevOps pipelines.
* Integrated Power BI with dedicated SQL pools for real-time data visualization and reporting, designing and maintaining SQL pools for high-performance data storage and query execution. Automated application deployment in the cloud using Docker technology, creating and managing Docker deployment pipelines for custom application images using Jenkins, ensuring efficient deployment processes.
* Configured Terraform to resolve complex dependencies and identify network issues, utilizing key features such as infrastructure as code, execution plans, and resource graphs to enhance deployment processes.
* Used Master and Minion Pods in Kubernetes, where the master serves the RESTful Kubernetes API that initializes and configures Pod Service and Replication Controllers in Kubernetes. Built and deployed Docker containers to break up monolithic applications into microservices, improving developer workflow and optimizing application speed and efficiency.
* Conducted performance tuning and troubleshooting of RHEL systems to ensure optimal performance and minimize downtime. Developed RESTful APIs using Python to facilitate integration between internal applications and third-party services.
* Implemented scalable infrastructure on Google Cloud Platform (GCP) using Google Compute Engine, Google Kubernetes Engine (GKE), and Google Cloud Storage, ensuring high availability and performance. Automated the provisioning of GCP resources using Terraform, significantly reducing manual intervention and deployment times.
* Developed CI/CD pipelines in Jenkins and integrated them with Google Cloud Build for seamless build and deployment processes.
* Implemented robust monitoring and logging solutions using Google Cloud Operations Suite (formerly Stack driver) to ensure the health and performance of applications running on GCP. Migrated on-premises workloads to GCP, optimizing resource utilization and reducing operational costs. Secured GCP environments using Identity and Access Management (IAM) roles and policies, ensuring compliance with industry standards.
* Managed Docker container snapshots, attaching them to running containers, removing images, managing directories, and handling container lifecycles efficiently. Analyzed and configured the fidelity of Prometheus metrics using AWS CloudWatch Logs to isolate specific pods and labels impacting the health and performance of containerized environments.
* Configured and maintained system status and health monitoring using Linux commands and Splunk system monitor, writing new plugins in Splunk for enhanced monitoring capabilities. Worked on JIRA agile projects for configuring columns, filters, and reports for sprints, ensuring efficient project management and tracking of development tasks and issues

**Qualcomm, San Diego, CA**

**Sr. Azure DevOps Engineer** June 2021 – March 2023

* Configured Azure Blob Storage with versioning and lifecycle policies to manage data backup, retention, and archival processes, ensuring data integrity and cost efficiency. Managed DNS records using Azure DNS and configured custom domain names for Azure services, enhancing service accessibility and reliability.
* Executed cloud migration strategies by defining delivery architectures, creating migration plans, and implementing orchestration plans to ensure a seamless transition to Azure with minimal downtime.
* Designed Azure Kubernetes Service (AKS) clusters using Terraform custom modules for different environments, including development, staging, and production, improving container orchestration and management. Automated infrastructure provisioning and configuration management using ARM templates and PowerShell scripting, reducing manual errors by 70% and enhancing deployment consistency.
* Implemented HashiCorp Vault as a centralized secrets management solution to secure sensitive information such as API keys and passwords, enhancing overall security. Developed end-to-end data integration pipelines to extract data from multiple sources, ensuring efficient and reliable data processing and management. Automated build, test, and deployment processes for C# applications using Azure DevOps, reducing release times and improving deployment reliability.
* Developed infrastructure as code using Terraform and automated deployment processes to improve efficiency and reduce the risk of human error. Managed CI/CD pipelines to streamline application delivery.
* Implemented proactive monitoring and logging solutions using Google Cloud Operations Suite to ensure the availability, performance, and security of production systems.
* Utilized Google Dataflow and BigQuery to develop ETL/ELT pipelines for efficient data processing and analytics, driving data-driven decision-making.
* Implemented the role based access control (RBAC) In Grafana to manage the user permissions and ensure the security to access the data sources and also integrated Grafana with the CI/CD pipelines to provide the visibility into Build and deployment processes enabling the monitoring and quick detection of the issues during the software development.
* Implemented security hardening and compliance checks on RHEL systems to meet regulatory standards. Designed and developed Python-based REST APIs for internal tools and services, enhancing data exchange and interoperability.
* Integrated Azure Monitor Log Analytics and Azure Application Insights to provide real-time visibility into application performance, health, and security, allowing for proactive monitoring and troubleshooting.
* Utilized Python for developing automation scripts, reducing manual effort and errors in deployments. Integrated with various APIs to automate workflows and enhance system integration and performance.
* Configured Amazon RDS instances using CloudFormation and Terraform, building Jenkins jobs to create AWS infrastructure from GitHub repositories containing Terraform code. Automated application deployments using ArgoCD, enabling continuous delivery pipelines for Kubernetes-based applications and ensuring consistent and automated deployments.
* Provisioned and configured Kubernetes services for creating new projects and services, load balancing, and enhancing application scalability. Created and managed CI/CD pipelines in Azure DevOps specifically tailored for C# projects, integrating testing frameworks to ensure code quality and reliability.
* Implemented test automation frameworks using Python and PowerShell to validate and ensure the reliability of C# applications, reducing manual testing efforts and improving test coverage.

**Starbucks, Seattle, WA**

**Sr. DevOps Engineer** January 2020 – May 2021

* Designed and implemented hybrid cloud solutions integrating on-premises data centers with Azure Virtual Network and ExpressRoute.
* Configured Azure DevOps pipelines for continuous integration and delivery of containerized applications.
* Conducted capacity planning and performance tuning of Azure SQL databases.
* Implemented Azure Policy and Azure Security Center to enforce compliance standards. Architected and deployed highly available and scalable applications on Microsoft Azure.
* Developed and maintained Synapse SQL pools optimizing performance and scalability. Implemented Point-to-Site VPN connectivity for secure remote access to Azure resources.
* Managed and administered GCP environments, ensuring strong fundamentals in computing, networking, security, and storage were applied to support business operations. Wrote and maintained readable, maintainable Terraform scripts for automating the delivery and deployment of cloud solutions, reducing manual effort and enhancing deployment consistency.
* Implemented GCP security best practices, including IAM, KMS, and firewall configurations, to ensure data protection and regulatory compliance. Set up comprehensive logging and monitoring using Google Cloud Operations Suite.
* Worked closely with cross-functional teams to identify and implement technical best practices. Communicated effectively with team members and clients about task status, technology queries, and availability.
* Developed complex data transformation workflows using ADF mapping data flows. Automated infrastructure provisioning and configuration management using ARM templates and PowerShell scripting.
* Configured data integration pipelines to ingest, transform, and load data into Azure Synapse Analytics.
* Employed infrastructure scaling using Kubernetes horizontal pod autoscaling. Automated the secrets lifecycle management using HashiCorp Vault. Integrated Azure Monitor Log Analytics and Azure Application Insights for real-time visibility.
* Optimized ArgoCD configurations and performance tuning. Implemented disaster recovery strategies using Azure Site Recovery and Azure Backup

**Dept of Human Services, MD**

**DevOps Engineer** January 2018 – December 2019

* Configured AWS CloudFormation templates to deploy complete stacks in multiple accounts, ensuring consistent and repeatable infrastructure deployments. Implemented and configured Cloud-Init scripts to bootstrap newly launched instances onto the Chef Server, automating the initial setup and configuration processes.
* Managed AWS cloud infrastructure and initiated continuous deployment through Jenkins, ensuring smooth and efficient code delivery. Integrated real-time logging and log analysis using the ELK stack (Elasticsearch, Logstash, Kibana) for .NET applications, enabling quick identification and resolution of issues.
* Automated release processes by defining release procedures and automating activities using Jenkins, Maven, and bash scripts, facilitating multiple simultaneous releases.
* Managed RHEL infrastructure, ensuring consistent updates and patch management for security compliance.
* Written Python scripts for automation of repetitive tasks, improving operational efficiency and reducing downtime. Worked with vCenter API for managing virtual machine deployments and monitoring, streamlining virtualization processes.
* Managed version control tools like Subversion (SVN) and GIT enterprise, ensuring proper versioning and collaboration on code changes. Created JIRA issues to prioritize and act on important events, staying up-to-date with project updates and ensuring timely resolution of tasks.
* Configured Ubuntu Linux and Windows virtual servers on AWS EC2 instances by creating Chef nodes through freely available Chef Server.
* Automated the bootstrapping of nodes to get updates from the Chef Server at specific intervals, ensuring systems remained up-to-date. Implemented backup and disaster recovery solutions for OpenShift clusters, safeguarding against data loss and ensuring business continuity.
* Worked with AWS services such as S3, RDS, and EKS to enhance OpenShift capabilities, optimizing resource utilization and performance. Configured OpenShift SDN for effective network segmentation and traffic management, ensuring secure and efficient communication between components.
* Automated release activities, enabling seamless and efficient releases by defining branching strategies and automating build and deployment processes. Maintained RHEL servers, ensuring optimal performance and reliability across all systems.
* Created automation scripts in Python to handle routine administrative tasks and deployments. Integrated with various APIs to enhance system functionality.
* Set up JIRA as a defect tracking system, configuring workflows and customizations to manage bug and issue tracking effectively. Created and maintained various JIRA project configurations, including workflows, custom fields, permissions, and notifications, ensuring proper tracking and management of project tasks.

**Timon Global Systems, Hyderabad**

**DevOps Engineer** November 2015 – September 2017

* Orchestrated automated deployments using Jenkins, Ansible, and Chef, streamlining release processes and reducing downtime. Implemented GitOps practices using GitLab CI/CD and Argo CD for declarative Git-centric continuous delivery of infrastructure and application code, ensuring consistency and reliability.
* Designed disaster recovery drills and failover tests to validate the resilience of multi-region cloud architectures, documenting findings and recommendations for improvement. Implemented centralized secrets management using HashiCorp Vault, ensuring secure storage and distribution of sensitive credentials and API keys.
* Automated scaling policies for Kubernetes deployments based on resource usage metrics, dynamically adjusting resources to accommodate fluctuating workloads and ensuring optimal performance.
* Configured Azure Monitor and Application Insights for real-time monitoring and logging of applications and infrastructure, creating custom dashboards for operational visibility. Integrated alerting systems to proactively handle potential issues, ensuring quick identification and resolution of problems.
* Automated routine operational tasks and maintenance activities using Azure Automation, PowerShell scripting, and Azure Logic Apps, reducing manual effort and enhancing operational efficiency. Automated Hadoop cluster provisioning and management tasks using Ansible, ensuring efficient setup and configuration of Hadoop environments.
* Implemented backup and disaster recovery solutions for Hadoop clusters, safeguarding against data loss and ensuring business continuity. Configured JIRA project settings, including workflows, custom fields, and notifications, to manage tasks and issues effectively.
* Developed Cron-jobs and Shell Scripts for automating administration tasks such as file system management and backups, enhancing operational efficiency.
* Migrated from Bamboo to Jenkins for continuous integration, setting up and configuring Jenkins to support automated build and deployment processes. Planned and performed upgrades to Linux operating systems and hardware maintenance, ensuring systems remained up-to-date and performed optimally

**Nuline Systems, Hyderabad**

**DevOps / Build and Release Engineer** May 2013 – October 2015

* Planned and performed upgrades to Linux operating systems and hardware maintenance.
* Designed and deployed applications utilizing AWS stack including EC2, Route53, S3, and RDS. Used Atlassian JIRA as an issue tracking and ticketing tool.
* Designed Puppet Modules to manage configurations and automate installations. Developed automation scripting in Python using Puppet for managing Java applications.
* Created, maintained, and customized JIRA project configurations. Developed Cron-jobs and Shell Scripts for file system management and backups. maintained source code repositories including GIT and Subversion.
* Automated the build process using Jenkins and Orchestrated application deployments using Jenkins and Puppet. Implemented centralized log management using ELK stack. Performed routine maintenance and troubleshooting of Linux servers.
* Configured AWS services for high-availability and fault-tolerance. Monitored and maintained logs for system status using Splunk. And Automated server provisioning and configuration using CloudFormation and Puppet

**Education**:

**Bachelor’s in Computer Science**, JNTUH, TG India – 2013