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**Nikitha**

**Senior DevOps Engineer**

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**Professional Overview**

**DevOps Engineer** with 11 years of experience spanning DevSecOps, Site Reliability Engineering (SRE) and Cloud Engineering. Skilled in designing and managing secure, scalable infrastructure, automating CI/CD pipelines and ensuring high availability across cloud and on-premises environments. Proven ability to enhance system reliability, optimizes performance and collaborates with cross-functional teams to drive innovation and accelerate software delivery.

* Extensive experience in managing cloud and infrastructure projects across various environments, driving innovation and efficiency through automation and aligning **DevOps** practices with business goals to achieve operational excellence.
* Expertise in setting up hybrid infrastructure across on-premise and cloud environments (**AWS**, **Azure**, **GCP**) using best practices for scalability and security.
* Proficient in deploying and managing infrastructure on **AWS**, **Azure** and **Google** **Cloud**.
* Implemented infrastructure as code (IaC) using Terraform and Ansible to automate the provisioning and management of cloud resources.
* Skilled in using IaC tools like **Terraform, CloudFormation and Ansible** to automate provisioning the infrastructure.
* Expertise in using configuration management tools like **Ansible, Chef, Puppet and SaltStack** to maintain consistent system setups across environments.
* Proficient in containerization using Docker, Kubernetes and Rancher for efficient application deployment and management.
* Skilled in managing Kubernetes clusters (**EKS**, **AKS** and **GKE**), implementing Helm charts for deployment and configuring Kubernetes Network Policies (**KNP**).
* Proficient in managing both relational databases **MySQL, PostgreSQL, SQL Server, Oracle** and NoSQL databases **MongoDB, Cassandra, DynamoDB, Redis**. Experienced with data warehousing solutions like **Snowflake, BigQuery and Redshift**.
* Managed configurations and deployments using Ansible and Helm, ensuring consistency across environments.
* Designed and implemented CI/CD pipelines using Jenkins, Git, GitOps and Argo CD to automate deployments and reduce time to market.
* Proficient in build tools like **Maven**, **Gradle**, **Ant**, **NPM** and **Yarn** for automating build processes.
* Integrated security best practices in DevOps pipelines using DevSecOps tools like Twistlock, Prisma and SonarQube.
* Experience with management tools like **HashiCorp Vault, AWS Secrets Manager, Azure Key Vault and Google Secret Manager** to securely manage sensitive information
* Constantly reviewed and enhanced processes, tools and practices to improve efficiency, security and scalability.
* Executed blue-green deployments to minimize downtime and ensure seamless rollouts of new features.
* Configured networking, load balancing and traffic management solutions for high availability and performance.
* Set up comprehensive monitoring solutions with Prometheus, Grafana and Splunk, **Nagios, Datadog and New Relic.**
* Proficient in logging tools like the ELK Stack (Elasticsearch, Logstashand Kibana), Fluentd and Graylog for effective log management.
* Configured centralized logging and analysis using ELK Stack and Splunk, facilitating quick issue resolution.
* Applied Site Reliability Engineering (SRE) principles to improve system reliability, automate operations and optimize infrastructure costs.
* Skilled in scripting languages such as **Python**, **Bash**, **PowerShell**, **Ruby** and **Go** and experienced with automation tools like **Selenium** and **Robot Framework**.
* Proficient in tools like **SonarQube**, **JUnit**, **Selenium** and **Cucumber** for maintaining high code quality and comprehensive testing and experienced with load testing and performance tools like **JMeter**, **Locust** and **Gatling** to ensure application reliability under load.
* Experienced with collaboration and project management tools like **Slack**, **Microsoft Teams**, **Jira**, **Confluence** and **Trello** for efficient communication.
* Collaborated closely with SRE, SecOps and development teams to align on objectives and provided 24/7 support as needed.

**Technical Skills**

| **Cloud Platforms** | AWS, Azure, GCP |
| --- | --- |
| **Infrastructure as Code (IaC) Tools** | Terraform, Ansible, CloudFormation |
| **Configuration Management Tools** | Ansible, Chef, Puppet, SaltStack |
| **Containerization and Orchestration** | Docker, Kubernetes, Rancher, EKS, AKS, GKE, Helm |
| **Databases** | MySQL, PostgreSQL, SQL Server, Oracle, MongoDB, Cassandra, DynamoDB, Redis, Snowflake, BigQuery, Redshift |
| **CI/CD Tools** | Jenkins, Git, GitOps, Argo CD |
| **Build Tools** | Maven, Gradle, Ant, NPM, Yarn |
| **DevSecOps Tools** | Twistlock, Prisma, SonarQube |
| **Secrets Management** | HashiCorp Vault, AWS Secrets Manager, Azure Key Vault, Google Secret Manager |
| **Monitoring Tools** | Prometheus, Grafana, Splunk, Nagios, Datadog, New Relic |
| **Logging Tools** | ELK Stack (Elasticsearch, Logstash, Kibana), Fluentd, Graylog |
| **Scripting Languages** | Python, Bash, PowerShell, Ruby, Go |
| **Testing and Quality Tools** | SonarQube, JUnit, Selenium, Cucumber, JMeter, Locust, Gatling |
| **Collaboration and Project Management Tools** | Slack, Microsoft Teams, Jira, Confluence, Trello |
| **Load Testing and Performance Tools** | JMeter, Locust, Gatling |
| **Logging and Monitoring Integration Tools** | ELK Stack (Elasticsearch, Logstash, Kibana), Fluentd, Graylog |
| **Automation Tools** | Selenium, Robot Framework |

**Work Portfolio**

**M & T Bank corp|Buffalo,NY Duration:Jan 2023- Present**

**Senior DevOps Engineer**

**Functional Role Details:**

* Led the complete setup and migration of M&T Bank’s infrastructure to Azure, architecting and deploying scalable, secure and resilient cloud solutions. Ensured seamless integration with existing systems while automating the provision of resources and optimizing performance to meet the M&T Bank’s enterprise-level demands.
* Drove the adoption of Infrastructure as Code (IaC) practices using **Azure Resource Manager (ARM) templates**, automating the provisioning and management of cloud resources to enhance operational efficiency and reduce deployment times for critical banking applications.
* Led the containerization and optimization of key banking applications using **Docker, Kubernetes, Helm and** **Azure Kubernetes Service (AKS),** ensuring high availability, scalability and reliability of online banking services and transaction processing systems across multiple environments.
* Managed multi-cluster Kubernetes environments using **Rancher,** providing centralized control, visibility and governance across clusters, which streamlined the management and operational efficiency of banking microservices.
* Architected and implemented secure Kubernetes networking configurations, including **Ingress controllers, Istio service mesh** for secure microservices communication and **Kubernetes Network Policies (KNP)** to safeguard sensitive financial data and ensure secure, compliant traffic flow between microservices.
* Designed and configured Kubernetes **Role-Based Access Control (RBAC)** to ensure granular access control for different banking teams and environments, enhancing overall security, compliance and auditability of banking systems.
* Implemented **Helm charts** to automate the deployment of complex banking applications on Kubernetes clusters, enabling version control, easy rollbacks and modular management of core banking systems.
* Optimized Kubernetes resource allocation and scaling mechanisms using **Horizontal Pod Autoscaling (HPA)** and **Cluster Autoscaler** to ensure efficient resource usage, minimal downtime and quick response to fluctuating transaction volumes in online banking platforms.
* Spearheaded the adoption of GitOps practices using **Argo CD** to enable declarative management and continuous delivery of banking applications, ensuring consistent deployments and faster delivery cycles.
* Architected and optimized complex network infrastructures utilizing **Istio service mesh, load balancers, VPNs, firewalls and** **CDNs (CloudFront, Azure CDN)** to enhance security, improve data flow and reduce latency for financial transactions and data exchanges.
* Engineered and optimized serverless computing solutions with **Azure Functions,** ensuring scalable and efficient deployment of lightweight banking services and customer-facing applications.
* Designed and managed robust CI/CD pipelines using **Jenkins, GitOps, Argo CD and** **Fleet** to automate builds, tests and deployments for rapid delivery of secure banking applications and services.
* Implemented and governed automated testing and code quality frameworks with **Cucumber,** ensuring early defect detection, reducing risk and improving deployment timelines for critical banking software.
* Developed and optimized automation scripts in **Python** and **Bash,** significantly improving operational efficiency and reducing manual intervention in the deployment and management of banking infrastructure.
* Led the deployment of **Istio** as a service mesh within **AKS** to streamline secure microservices communication, enhance security with mutual TLS and improve observability across the banking IT environment.
* Enhanced monitoring and observability using **Prometheus, Grafana and** **Splunk,** improving troubleshooting efficiency and reducing incident response times across Kubernetes clusters running key banking applications.
* Led the optimization and management of distributed database systems using **DynamoDB,** ensuring high availability and fast data retrieval for banking transaction processing systems.
* Directed the implementation and ongoing optimization of data warehousing solutions using **Snowflake,** enhancing data storage efficiency, reducing query times and improving data analytics capabilities for regulatory compliance and business intelligence.
* Engineered **Kafka-based** messaging and real-time data streaming solutions, ensuring reliable, scalable and high-performance event-driven architectures for real-time financial data processing and transaction management.
* Implemented secrets management with **HashiCorp Vault,** ensuring secure storage and access to sensitive banking data, enhancing security and maintaining compliance with industry regulations.
* Developed comprehensive data backup and recovery strategies using **Azure Backup,** ensuring data integrity and reliable recovery of critical banking information.
* Managed and optimized artifact management with **Nexus,** improving storage efficiency and reducing retrieval times for software components in banking application development.
* Conducted a proof of concept for deploying and managing **Docker** containers on **AWS ECS** and **EKS,** evaluating resource utilization and operational efficiency to determine feasibility for large-scale adoption in a banking environment.
* Facilitated collaboration across development, security and operations teams to align goals, streamline processes and improve the reliability and security of banking systems and services.

**Molina Health care INC|longbeach, CA Duration: Feb 2020 – Nov 2022**

**Senior Cloud Engineer**

**Functional Role Details:**

* Architected, deployed and maintained scalable cloud infrastructure for healthcare applications across **Azure** and **GCP,** leveraging **Azure Functions** and **GCP Cloud Functions** for serverless applications and utilizing **Azure Monitor** and **Google Cloud Monitoring** for comprehensive system monitoring and alerting to ensure patient data security and compliance.
* Developed and managed infrastructure as code (IaC) using **Terraform** for state management, **Azure Resource Manager (ARM) templates and** **Google Cloud Deployment Manager** for consistent provisioning of healthcare resources across multiple cloud environments.
* Designed and implemented secure network architectures using **Azure VNet** and **Google VPC,** configuring **DNS, load balancing, VPNs, firewalls and** **CDN** services to protect sensitive patient data and facilitate efficient global content delivery.
* Managed multi-cluster **Kubernetes** environments using **Rancher** for centralized control and monitoring of clusters across **Azure** and **GCP,** improving operational efficiency and governance for healthcare services.
* Implemented CI/CD pipelines using **Jenkins** and **ArgoCD,** automating continuous integration and delivery for healthcare applications on **Kubernetes** clusters, with branch protection via **GitHub** for enhanced code integrity and compliance.
* Containerized healthcare applications using **Docker** and deployed them on **Azure Kubernetes Service (AKS)** and **Google Kubernetes Engine (GKE),** optimizing for scalability, performance and secure data handling.
* Automated complex workflows and repetitive tasks using **Python** scripting and **Selenium WebDriver API** for browser automation, enhancing efficiency in testing and deployment of healthcare solutions.
* Managed artifact repositories with **Artifactory,** securely storing and retrieving multiple package formats, supporting efficient build processes for large-scale healthcare applications.
* Enforced security best practices using **Azure AD** and **Google Identity** for access control and implemented **Azure Key Vault** for secure secrets management, ensuring robust security across healthcare cloud environments.
* Set up monitoring and logging solutions using **Prometheus** and **Grafana** for real-time performance monitoring and **Prometheus Alert manager** for effective incident management and alerting across healthcare cloud systems.
* Developed disaster recovery solutions using **Azure Backup** and **Google Cloud Backup,** ensuring data integrity and business continuity for critical healthcare data across multiple cloud platforms.
* Managed and optimized databases with **MongoDB** for NoSQL and **Redshift** for data warehousing, ensuring high availability, scalability and efficient processing of large healthcare datasets.
* Implemented service mesh solutions using **Linkerd** for secure communication and traffic management between microservices, providing mutual TLS and enhanced deployment control for healthcare applications.
* Managed configuration and deployment automation using **SaltStack** for remote execution, enforcing consistency across servers and environments to reduce configuration drift in healthcare IT systems.
* Integrated project management and agile workflows using **Trello** for task tracking and **NPM** for package management, streamlining software development and deployment processes for healthcare solutions.

**NeuBerger Berman|NY Duration:Nov 2018- Dec 2019**

**Site Reliability Engineer**

**Functional Role Details:**

* Developed and managed containerized insurance applications using **Kubernetes** automated rollouts and rollbacks for seamless updates and **OpenShift**'s integrated CI/CD tools for streamlined container orchestration, along with **AWS ECR**'s image scanning for secure and compliant container registry management.
* Architected, deployed and maintained scalable cloud infrastructure for insurance services using **AWS,** leveraging **AWS Lambda**'s event-driven execution for serverless applications, **Cloud Trai**l’s logging capabilities for tracking user activity and API usage, **IAM**'s role-based access control for secure, granular access management, **ECS**'s task definitions for efficient container orchestration and **Red shif**t’s columnar storage for high-performance data warehousing.
* Developed and managed infrastructure as code using **Terraform**'s state management and resource graph for efficient and consistent provisioning of cloud resources in the insurance sector.
* Designed, implemented and maintained CI/CD pipelines using **AWS Code Pipelin**e’s automated workflows for continuous integration and delivery and **Bit bucke**t’s pull request review process for collaborative version control in insurance software development.
* Set up and maintained monitoring solutions using **Datadog**'s customizable dashboards for real-time system monitoring and **Fluentd**'s unified logging layer for centralized and scalable logging, ensuring system health, performance and reliability for insurance applications.
* Implemented and managed configuration management using **Chef**'s cookbooks and recipes for automating and standardizing the deployment and configuration of servers and applications in insurance IT environments.
* Managed and enforced security best practices using **Aqua Security**'s image assurance policies and runtime protection for comprehensive container security and vulnerability management, safeguarding sensitive insurance data.
* Designed and managed network architecture for insurance services, including DNS, load balancing, VPN and firewalls using **AWS VPC**'s subnet isolation and security groups for secure and efficient network segmentation and traffic management.
* Accelerated builds with **Gradle**'s build cache, managed projects using **Trello**'s kanban boards and automated tasks with **Python**'s standard library and **Selenium**'s WebDriver API, optimizing insurance software development and deployment workflows.
* Managed and optimized database solutions using **Redis**'s in-memory data structure store for fast data retrieval and processing and **BigQuery**'s SQL-like queries and data analysis capabilities for efficient data warehousing and analytics in insurance operations.
* Implemented robust data backup and recovery solutions using **Veeam**'s automated backup policies and instant VM recovery for data integrity and high availability, managed messaging and streaming services with **RabbitMQ**'s exchange types and message routing for reliable message delivery and processing and developed orchestration and workflow automation using **Apache Airflow**'s DAGs for scheduling and monitoring complex workflows in insurance processes.
* Managed and maintained artifact repositories using **Nexus**'s health check and automated cleanup policies, implemented and managed service mesh solutions with **Consul**'s service discovery and key-value store for dynamic configuration and developed cost-effective serverless applications leveraging **AWS Lambda**'s automatic scaling and pay-per-execution pricing for insurance services.
* Ensured high code quality and reliability using **Selenium**'s automated testing scripts and grid for consistent testing across multiple environments and **JMeter**'s distributed testing capabilities for scalable load testing and performance analysis, ensuring robust insurance software solutions.

**Target|Minneapolis, MN Duration:Jun 2016 – Oct 2018**

**DevOps Engineer**

**Functional Role Details:**

* Architected and managed cloud infrastructure for retail applications using **Google Cloud's Compute Engine** for scalable virtual machines and **Cloud Storage** for durable and secure data storage solutions, ensuring high availability and reliability of e-commerce platforms.
* Developed and maintained containerized retail applications using **Docker**'s containerization for consistent environments and **Docker Hub** automated builds for seamless container registry management, supporting continuous delivery of retail software.
* Implemented infrastructure as code and configuration management using **Ansible's playbooks** for automated provisioning and configuration, streamlining the deployment of retail IT infrastructure.
* Designed and maintained CI/CD pipelines using **Jenkins**'s pipeline as code for automated build and deployment and **GitLab CI**'s runners for parallel job execution, with **GitLab** for version control and merge request workflows to accelerate retail application development and updates.
* Set up and maintained monitoring solutions with **New Relic's APM (Application Performance Monitoring)** for tracking retail application performance and the **ELK Stack (Elasticsearch, Logstash, Kibana)** for centralized logging and real-time analysis, improving system reliability and customer experience.
* Managed network architecture using **Google VPC's subnet isolation** for network segmentation and security, including DNS, load balancing, VPN and firewalls to protect sensitive retail data and transactions.
* Utilized **Maven**'s dependency management for efficient build automation and managing project dependencies, enhancing the development of retail software solutions.
* Facilitated team collaboration and documentation using **Confluence**'s page versioning for maintaining and tracking changes, ensuring up-to-date documentation for retail operations and IT processes.
* Automated tasks and processes using **Python's** extensive standard library for versatile scripting and automation, increasing efficiency in managing retail systems.
* Managed and optimized database solutions using **Cassandra's** distributed architecture for high availability and scalability, supporting real-time data access for retail operations.
* Implemented data backup and recovery solutions using **Veeam's** instant VM recovery for quick restoration of retail services and managed messaging and streaming services using **Kafka's** partitioning for scalable and fault-tolerant data streaming, ensuring continuous service availability.
* Ensured code quality and reliability using **JUnit's** test annotations for structured and repeatable unit testing and **JMeter's** distributed testing for scalable load testing and performance analysis, maintaining robust retail applications.

**DevOps Enabler & Co,|Bangalore, India Duration:Mar 2012- Apr 2016**

**Sys Admin**

**Functional Role Details:**

* Implemented and maintained CI/CD pipelines using **Jenkins** and troubleshot and resolved related issues to ensure smooth and efficient deployments.
* Supported the development and maintenance of infrastructure as code using **Terraform** to manage cloud resources.
* Monitored and managed cloud infrastructure with **CloudWatch** to ensure high availability and performance.
* Set up and manage monitoring tools like **Prometheus** and **Grafana** to track system performance and health.
* Implemented and managed logging solutions with the **ELK stack (Elasticsearch, Logstash, Kibana)** to ensure comprehensive logging and quick issue resolution.
* Collaborated with development teams and used **Ansible** for automating deployment processes and improving operational efficiency.
* Assisted in developing automation scripts using **Python** to automate routine tasks and improve efficiency.
* Supported the use of configuration management tools like **Puppet** to manage software configurations and environments.
* Documented incidents and maintained up-to-date documentation for processes, workflows and tools using **Confluence**.

**Certified Achievements**

* Microsoft Certified: **Azure** DevOps Engineer Expert.
* **AWS** Certified DevOps Engineer Professional.
* **Terraform Associate**

**Educational Chronicle:**

* Bachelors in Computer Science in RVR & JC - 2011