**DEVI KEERTHANA ||**

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**AWS DevOps Engineer**

**Cloud & DevOps Expert | AWS | Kubernetes | Terraform | CI/CD | Security | Automation**

**SUMMARY:**

AWS DevOps Engineer with **11 years of experience** in **Cloud Infrastructure, DevOps, CI/CD automation, Configuration Management, Security, and System Administration** across **AWS, GCP, and Azure** environments. Proven expertise in designing, automating, and optimizing **highly available, scalable, and secure** cloud architectures while implementing **DevOps best practices** to streamline software deployment and system performance.

**Key Expertise:**

* Designed and deployed AWS, GCP, and Azure cloud solutions using Terraform, Ansible, and CloudFormation.
* Developed end-to-end CI/CD pipelines using Jenkins, GitHub Actions, GitLab CI/CD, and Harness, improving deployment frequency and reducing release cycle time.
* Managed Dockerized applications, deployed on Kubernetes and OpenShift, enhancing scalability and availability.
* Implemented AWS IAM, HashiCorp Vault, SonarQube, and security policies for access management and compliance.
* Configured Prometheus, Grafana, Splunk, AWS CloudWatch, and Nagios to optimize system health and response time.
* Automated cloud provisioning using Terraform and AWS CloudFormation, ensuring infrastructure consistency.
* Hands-on experience with Scrum, Agile methodologies, and SRE principles for software delivery and reliability.

**TECHNICAL SKILLS**

* **Cloud Platforms:** AWS (EC2, S3, VPC, IAM, RDS, Route 53, CloudFormation, Lambda), GCP, Azure
* **CI/CD Tools:** Jenkins, GitHub Actions, GitLab CI/CD, Bitbucket Pipelines, Harness
* **Infrastructure as Code (IaC):** Terraform, AWS CloudFormation
* **Configuration Management:** Ansible, Puppet
* **Containerization & Orchestration:** Docker, Kubernetes, OpenShift
* **Monitoring & Logging:** Prometheus, Grafana, Splunk, CloudWatch, Nagios
* **Security & Compliance:** AWS IAM, HashiCorp Vault, SonarQube, JFrog X-Ray, ECR Inspector
* **Version Control:** Git, GitHub, GitLab, Bitbucket, SVN
* **Scripting & Automation:** Python, Shell Scripting
* **Build & Artifact Management:** Maven, ANT, JFrog Artifactory, Nexus
* **Databases:** MySQL, PostgreSQL, CosmosDB, AWS RDS

**PROFESSIONAL EXPERIENCE:**

**Best Buy, Richfield, MN** | **May 2023 – Present**

**Sr Openshift ARO /Kubernetes Platform Engineer**

**Key Responsibilities:** I’m working in PaaS Team which handles OpenShift on On-prem and OpenShift on Azure. We have around more than 200 applications running on our clusters, and we support dedicated clusters and shared workload clusters.

* Working on the container platform ecosystem (**installation, upgrade, patching, monitoring**)
* Experience with working on **OpenShift On-Prem** using **UPI** installation method with 21 worker nodes.
* Worked on Upgrading **RedHat OpenShift** cluster like dev, test, UAT and prod from **4.8.X to 4.10.25.**
* Worked on Upgrading the clusters from 4.10.X to 4.12.X; then followed by 4.13.X and 4.14.37(latest upgrade which I worked on)
* Worked on creating workload monitoring stuff for all **OpenShift clusters**.
* Experienced in Day-to-Day deployments to QA, Stage and Production using Ansible Tower Jobs or through CLI.
* Worked on installation and configuration of **DevOps Automation Tool Ansible.**
* Worked on setting up **RHACM** and **ACS** on OpenShift clusters which are responsible for managing all the clusters from single controllers and checking vulnerabilities on run time.
* Utilized Podman and Buildah to pull and push images to various container registries, including Docker Hub and private registries.
* Worked **on Portworx Operator for File and Block storage volumes** on the cluster which is hosted on the On-Prem Virtual Machines.
* Worked on Upgrading **Portworx OCI Monitor, Operator, and Stork Image** on the OCP clusters.
* **Installed Istio Service Mesh Operator on the OpenShift clusters for setting up the traffic** management rules, configuring security features, and enabling Istio's observability features.
* Worked on Setting up **Grafana and Prometheus** dashboards for CPU and memory utilization on running workloads in the cluster.
* Deployed and supported **ARO and AKS** clusters
* Deployed OpenShift cluster with objects like Pods, Deployments, Services and ConfigMaps and created reproducible builds of the Kubernetes applications, managed Kubernetes manifest files and Helm packages and implemented Kubernetes to deploy scale, load balance, scale and manage Docker containers with multiple namespace versions.
* Oversee all operational activities for enterprise system applications in scope, meeting required deadlines.
* Creating and **branching** and **merging** strategy with multiple branches and using **Git** as source code management repository to keep track of version changes.
* Worked on pushing and pulling images to quay.io and JFrog artifactory.
* Experience of working with OpenShift on On-Premises started with **4.3** with 19 worker nodes migrated from 3.11.
* Experience with installing **ArgoCD to deploy operators onto ARO Platforms**.
* Worked with application teams to support their deployments on the OpenShift.
* Worked on customer requirements applying egress policies for external facing application and increasing resource quotas.
* Worked on the. apps **ingress certificate creation and api certificates on the OpenShift** clusters.
* Worked on **Etcd encryption** enabled on the **OpenShift clusters through Kustomization** Templates.
* Worked on enabling AAD login screen on the **ARO** clusters. Disabling self-provisioning role in OpenShift
* Experience with working on **creating a kustomize template for OpenShift-logging in ARO.**
* Deployed **file beat and fluent bit on ARO clusters**.
* Configured **twistlock** in newly created **ARO** clusters.
* Working with IBM Team to deploy **DataStage, Cloud pack for data and WKC containerized** applications onto **ARO** Clusters.
* Worked on installing OpenShift Data Foundation (ODF) on **ARO** worker nodes.
* Worked on creating labels and defining node-selector to run workloads on dedicated worker nodes.
* Worked on configuring **kustomized** templates in Kubernetes to deploy **azure log analytics in ARO OpenShift clusters in test, dev, and prod** clusters.
* Worked with application teams to set up **CI/CD system with Jenkins on Kubernetes** container environment, utilizing **Kubernetes and Docker** for the **CI/CD system** to build, test and deploy.
* **Configured Jenkins file** to check out SCM repository in regular intervals, builds, stage, deploy and send build status notifications to team.

**Environment:** Terraform, Kubernetes, Docker, Jenkins, Harness, Ansible, Python, GitHub Actions, Prometheus, Grafana, Splunk, CloudWatch

**Cloud Infrastructure Engineer / DevOps Engineer**

**Coach Inc., New York city, New York** | **Nov 2021 – Apr 2023**

**Project: AWS Cloud Infrastructure Optimization & DevOps Automation**

**Project Description:** Spearheaded the design, deployment, and automation of AWS cloud infrastructure to support business-critical applications while improving security, scalability, and cost efficiency. The goal was to modernize cloud environments, automate infrastructure provisioning, and implement containerized microservices.

**Key Responsibilities:**

* Architected, deployed, and managed AWS infrastructure using EC2, S3, VPC, Route 53, and CloudFormation, ensuring scalability and cost-effectiveness.
* Developed and implemented Infrastructure as Code (IaC) solutions using Terraform and AWS CloudFormation, ensuring consistent and repeatable deployments.
* Automated cloud operations and system tasks using AWS Lambda functions, reducing manual intervention and improving workflow efficiency.
* Deployed and managed containerized applications using AWS ECS (Elastic Container Service) and EKS (Elastic Kubernetes Service), enhancing microservices orchestration.
* Utilized AWS Elastic Beanstalk to streamline application deployment and scalability.
* Implemented AWS Auto Scaling, dynamically adjusting resource capacity based on real-time application traffic to optimize costs.
* Configured AWS networking, including VPC peering, NAT gateways, and VPN connections, to ensure secure and seamless communication between resources.
* Integrated AWS CloudWatch and AWS CloudTrail for monitoring, logging, and auditing, proactively identifying and mitigating performance issues.
* Developed automation scripts using Python and Shell scripting to streamline infrastructure provisioning, maintenance, and deployment processes.
* Managed AWS RDS instances, deploying and maintaining relational databases including MySQL, PostgreSQL, and SQL Server, ensuring database security and high availability.
* Implemented AWS WAF (Web Application Firewall) to safeguard applications against security vulnerabilities and threats.
* Collaborated with cross-functional teams, including development, security, and IT operations, to design and implement secure, cost-effective, and scalable AWS cloud solutions.

**Environment:** AWS (EC2, S3, VPC, Route 53, CloudFormation, Terraform, AWS Lambda, AWS Elastic Beanstalk, AWS Auto Scaling, AWS CloudWatch, Python, AWS IAM, AWS CloudTrail, AWS RDS, MySQL, PostgreSQL, SQL Server, AWS ECS, AWS EKS, AWS WAF)

**DevOps Engineer**

**KeyBank, Cleveland, OH** | **Sep 2020 – Oct 2021**

**Project: CI/CD Modernization & Infrastructure Automation**

**Project Description:** This project focused on enhancing CI/CD workflows, automating deployments, and ensuring high security in production environments.

**Key Responsibilities:**

* Designed and implemented automation infrastructure for configuration management and orchestration deployments using Ansible, reducing manual workload.
* Automated build and deployment processes using Git, GitHub, Jenkins, Ansible, Docker, and Kubernetes, reducing deployment time and human errors.
* Developed Ansible Playbooks to automate provisioning, ensuring consistent application deployment.
* Orchestrated containerized applications using Kubernetes, enhancing deployment efficiency and scalability.
* Implemented production-ready, load-balanced, highly available, and secure infrastructure to support business-critical applications.
* Led CI/CD pipeline migration to AWS Cloud, reducing workflow bottlenecks.
* Developed Terraform-based AWS multi-tier architecture, spanning multiple availability zones, ensuring scalability and fault tolerance.
* Architected and configured AWS environments with VPC, subnets, EC2 instances, security groups, NACLs, and NAT gateways.
* Improved monitoring and logging systems using Prometheus, Grafana, and AWS CloudWatch, reducing incident response time.
* Developed automation scripts in Shell and Python, streamlining deployment processes.
* Ensured seamless integration between GitHub repositories, Jenkins pipelines, and Dockerized applications for an end-to-end automated workflow.

**Environment:** AWS, Terraform, Ansible, Jenkins, Git, GitHub, Docker, Kubernetes, Maven, Tomcat, Apache, Shell Scripting, CI/CD, VPC, EC2, Security Groups, NACLs, Bastion Hosts, NAT Gateways

**Chime, San Francisco, CA** | **Mar 2017 – Aug 2020**

**Cloud Infrastructure Engineer / DevOps Engineer**

**Project: AWS Cloud Infrastructure Optimization & DevOps Automation**

**Project Description:** Led the design, deployment, and automation of AWS cloud infrastructure to support financial applications, ensuring high availability, scalability, and security. The project focused on Infrastructure as Code (IaC), automation, cost optimization, and containerization to enhance operational efficiency and ensure compliance with financial security standards.

**Key Responsibilities:**

* Architected and deployed AWS infrastructure using EC2, S3, VPC, Route 53, and CloudFormation to build scalable and cost-effective cloud environments.
* Implemented Terraform and AWS CloudFormation templates for Infrastructure as Code (IaC), ensuring consistent and automated cloud resource provisioning.
* Developed AWS Lambda functions to automate event-driven tasks, reducing manual intervention and improving operational efficiency.
* Deployed and managed applications using AWS Elastic Beanstalk, allowing automated scaling and deployment of web applications.
* Implemented AWS Auto Scaling and Load Balancing, dynamically adjusting resource capacity based on real-time traffic patterns to optimize cost and performance.
* Configured AWS networking components, including VPC peering, NAT gateways, and VPN connections, to ensure secure communication between financial systems.
* Integrated AWS CloudWatch and CloudTrail for monitoring, logging, and auditing API calls, improving visibility into system performance and security incidents.
* Developed automation scripts in Python to streamline infrastructure provisioning, configuration, and maintenance, improving workflow efficiency.
* Implemented AWS IAM role-based access control to enforce security best practices and ensure least-privilege access to AWS resources.
* Managed AWS RDS instances, deploying and maintaining relational databases such as MySQL, PostgreSQL, and SQL Server, ensuring high availability and optimized performance.
* Deployed microservices-based applications using AWS ECS (Elastic Container Service) and AWS EKS (Elastic Kubernetes Service) to ensure scalable and fault-tolerant architectures.
* Configured AWS WAF (Web Application Firewall) to protect web applications from common security threats, enhancing compliance with financial industry regulations.
* Developed Java-based applications to integrate with AWS services, ensuring seamless interaction with cloud resources and improving application efficiency.
* Collaborated with cross-functional teams to design and implement secure, cost-effective, and scalable AWS cloud solutions aligned with financial sector best practices.

**Environment:** AWS (EC2, S3, VPC, Route 53, CloudFormation, Terraform, AWS Lambda, AWS Elastic Beanstalk, AWS Auto Scaling, AWS CloudWatch, Python, AWS IAM, AWS CloudTrail, AWS RDS, MySQL, PostgreSQL, SQL Server, AWS ECS, AWS EKS, AWS WAF)

**AbbVie Inc, North Chicago, IL** | **June 2015 - Feb 2017**

**Build and Release Engineer**

**Project: Automated Build & Release Process for Healthcare Applications**

**Project Description:** Enhanced software development lifecycle efficiency by implementing automated build and deployment processes.

**Key Responsibilities:**

* Developed and maintained Jenkins pipelines to automate builds, testing, and releases.
* Managed branching and version control using Git and SVN to ensure smooth development workflows.
* Automated deployments using Puppet and Ansible, reducing manual deployment errors.
* Implemented build monitoring and alerting using Splunk and Nagios.
* Collaborated with developers and QA teams, ensuring software quality and security compliance.

**Environment:** Jenkins, SVN, Maven, Puppet, WebSphere, Tomcat

**Avvas Infotech, Bangalore, India** | **May 2012 – Nov 2014**

**Linux Administrator**

**Project: Enterprise Linux Server Management & Automation**

**Project Description:** Managed enterprise Linux servers across multiple data centers, improving automation, security, and performance.

**Key Responsibilities:**

* Managed and optimized Linux servers (RHEL, Ubuntu, CentOS) to ensure high availability.
* Automated provisioning using Kickstart and Puppet, reducing server setup time by 80%.
* Configured network services, including DNS, DHCP, and Apache, to support infrastructure needs.
* Developed Shell scripts for automation, reducing repetitive manual tasks and enhancing system efficiency.
* Implemented user access policies and performed security hardening for compliance.

 **Environment:** RHEL, Ubuntu, CentOS, Puppet, Apache, DNS, DHCP

**EDUCATION:**

🎓 **Bachelor of Technology in Computer Science Engineering**