**Siva Bharath**

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**Summary:**

**AWS & DevOps Engineer** with **12 years of experience** in provisioning and managing infrastructure in AWS using **Terraform, CloudFormation, containerization**, and proficient in using **GitHub Actions** and **Jenkins** for **CI/CD pipelines**. Proficient in AWS services **(EC2, S3, VPC, ALB/NLB, Auto-Scaling, ECS, EKS, RDS, Lambda, DynamoDB, Storage Gateway, API Gateway, Lambda, SNS, SQS, Route53 and CloudFront, Encryption/KMS, IAM policies/roles, Cloud formation and CloudWatch),** **Kubernetes, Docker, Jenkins, and GitHub Actions**. Skilled in scripting with **Shell, Groovy, and Python**, as well as building and deploying **Java, C & C++, iOS and Android** applications using tools like **Maven/Gradel/Make/Shift**. Adept at monitoring with **Grafana and Splunk**, ensuring code quality with **SonarQube** and vulnerability scans with **Fortify and Black Duck**, and managing infrastructure as code using **Terraform and YAML**. Seeking to leverage my expertise to optimize cloud operations and drive agile development in a forward-thinking organization.

Skills:

**Cloud Platforms**: AWS (EC2, S3, VPC, ALB/NLB, Auto Scaling, ECS, EKS, RDS, Lambda, DynamoDB, Storage Gateway, API Gateway, Lambda Functions, SNS, SQS, Route53 and CloudFront, Encryption/KMS, IAM policies/roles, Cloud formation and CloudWatch)

**Containerization**: Docker, Kubernetes

**CI/CD Tools**: Jenkins, GitHub Actions, GitLab CI/CD

**Build Tools**: Maven, Make, iOS and Android Build

**Monitoring**: Grafana, Splunk

**Code Quality**: SonarQube, Fortify, Black Duck

**Scripting**: Shell, Groovy, Python

**Infrastructure as Code**: Terraform, Ansible, YAML

**Version Control**: Git

**Projects Summary:**

1. **Client: Verizon**

**Duration: Mar 2023 – Till Date**

**Role: Sr. AWS & DevOps Engineer**

**Responsibilities / Deliverables:**

* Designed, implemented, and managed highly available SaaS platforms on **AWS using EKS, ECS, and Lambda**. Provisioned AWS resources **(EC2, EBS, S3, RDS, DynamoDB, VPC)** using **Terraform and CloudFormation,** ensuring automation, scalability, and cost optimization.
* Developed reusable **Terraform** modules to manage **AWS resources,** including **EC2, EKS clusters, IAM roles, Security Groups, VPC** configurations, and **Auto Scaling groups**. Automated security configurations with **IAM policies, KMS encryption, and AWS WAF**.
* Built and maintained **CI/CD pipelines** using **GitHub Actions and Jenkins** for application deployment and infrastructure provisioning. Integrated **SonarQube, Black Duck, and Fortify** for security and compliance in **CI/CD workflows.**
* Deployed, managed, and optimized Kubernetes **(EKS and on-prem)**. Designed network policies, Kubernetes Secrets, RBAC, and automated zero-downtime deployments (blue-green, canary). Managed Docker containers, wrote custom Docker files, and optimized containerized workloads.
* Automated **Android and iOS app** deployments using **Jenkins, Fastlane, and Cocoa Pods.** Configured **Android Gradle** builds and integrated mobile pipelines with security tools.
* Configured **Jenkins Shared Librarie**s and scripted pipelines using **Groovy** to standardize and optimize CI/CD processes.
* Integrated **SonarQube, Black Duck, Fortify, and JFrog Artifactory** for security, compliance, and artifact management.
* Automated provisioning of **Jenkins agents** using **Docker, Kubernetes, and dynamic AWS EC2** instances.
* Wrote **Ansible playbooks** for infrastructure provisioning, configuration management, and application deployments.
* Automated patching, security hardening, and system configurations across AWS and on-prem environments Using **Ansible**.
* Configured **Ansible Tower** to manage role-based access control (RBAC) and centralized automation workflows.
* Integrated **Ansible with Terraform** and **Jenkins** to enable full infrastructure automation within CI/CD pipelines.
* Managed AWS infrastructure **(EC2, RDS, S3, EKS, IAM)** using **Ansible modules** for consistent provisioning and deployment.
* Optimized **Gradle builds** for **Android applications**, improving **APK** generation time and dependency management. Configured multi-module **Gradle projects** to enable efficient development and modularization.
* Integrated **Gradle** with Jenkins CI/CD pipelines for automated build, test, and deployment workflows. Automated versioning, signing, and release management using **Gradle** tasks and Fastlane.
* Managed **iOS dependencies** using **Cocoa Pods**, ensuring seamless integration of third-party libraries.
* Automated **Cocoa Pods** updates and dependency resolution within CI/CD pipelines. Configured **Pod spec** files to manage private and public **Cocoa Pods** repositories efficiently.
* Integrated **Cocoa Pods** with Fastlane to automate app builds, testing, and deployment processes. Resolved dependency conflicts, optimized Pod file configurations, and improved app performance.
* Configured and maintained **JFrog Artifactory** for storing and managing Docker images, **Maven/Gradle** artifacts, and npm packages.
* Integrated **Artifactory** with **Jenkins and GitHub Actions** for secure artifact storage and retrieval in **CI/CD pipelines.**
* Implemented repository replication and **HA (High Availability)** configurations for improved performance and resilience.
* Enforced **JFrog artifact** retention policies, cleanup strategies, and security scanning using Xray. Automated artifact promotion across development, staging, and production environments to streamline releases.
1. **Client: Cisco Systems India Pvt ltd (Accenture Solutions Private Limited)**

**Duration: Jun 2019 – Feb 2023**

**Role: Sr. AWS & DevOps Engineer**

**Responsibilities / Deliverables:**

* Automated the design, provisioning, and scaling of **AWS resources**, including **EC2, VPC, ALB/NLB, Auto Scaling, RDS, DynamoDB, and EKS** using **Terraform** to ensure scalability, cost-efficiency, and security compliance.
* Managed and automated networking configurations such as **subnets, route tables, security groups, and Direct Connect/VPN** using **Terraform** for secure cloud and hybrid connectivity.
* Designed and deployed containerized applications using ECS and EKS, implementing network policies, RBAC, and security best practices.
* Developed and deployed **AWS Lambda functions** using **Python (Boto3)** for automating interactions with **AWS services** like **S3, DynamoDB, SNS, and SQS,** ensuring serverless execution and scalability.
* Implemented and managed **AWS Storage Gateway,** integrating on-premise environments with AWS cloud storage, and automated backup processes using **S3 lifecycle policies** and **Glacier** for cost-effective data archiving.
* Provisioned and managed **IAM roles, policies, and encryption** using **AWS KMS** to secure access control, data encryption, and regulatory compliance.
* Automated **API Gateway and Route 53** configurations for **scalable API endpoints and DNS management** using Terraform.
* Implemented enterprise-grade security frameworks using **AWS WAF, Guard Duty, Security Hub, AWS Shield, and IAM** best practices to protect cloud infrastructure from cyber threats.
* Developed and managed **CI/CD pipelines** using **Jenkins, Spinnaker, and GitHub Actions** to automate build, test, and deployment processes, ensuring seamless application releases.
* Managed **Kubernetes clusters (EKS & on-prem)** with automated scaling, ingress controllers, and deployments using **Terraform**, optimizing performance and availability.
* Designed, implemented, and managed **Ansible playbooks, roles, and modules** to automate infrastructure provisioning and application deployment.
* Developed idempotent **Ansible scripts** to ensure consistent system configurations across multiple environments **(Dev, QA, Prod).**
* Automated server provisioning, configuration management, and application deployments using **Ansible, Terraform, and Jenkins.**
* Created and managed **Ansible inventories, dynamic inventory scripts, and variable files** to ensure scalable automation.
* Implemented **Ansible Tower** to provide centralized automation control and role-based access for deployments.
* Developed and optimized **Ansible roles** for configuration management, ensuring modular and reusable automation.
* Managed and optimized **Gradle build scripts** (build. Gradle, settings. Gradle) for Android application builds and dependencies.
* Automated **APK** builds using **Gradle** tasks and integrated them into **Jenkins and GitHub Actions** CI/CD pipelines.
* Configured **Gradle caching** and parallel execution to optimize build performance and reduce build time.
* Managed and resolved **Gradle dependency** conflicts to ensure stable and reproducible builds.
* Integrated **ProGuard, R8, and Dex Guard** for code obfuscation and security in Android applications.
* Automated versioning and signing of Android applications using **Gradle and Keystore** management.
* Published Android artifacts **(AAB, APKs, libraries)** to **JFrog Artifactory** and internal Maven repositories.
* Managed **Cocoa Pods dependencies** for **iOS projects,** ensuring smooth integration with **Xcode and Swift/Objective-C projects.**
* Created and maintained custom **Cocoa Pods for shared iOS libraries** across multiple applications. Automated the installation and update of **Cocoa Pods dependencies** in CI/CD pipelines using Jenkins.
* Resolved dependency conflicts and version mismatches between **CocoaPods libraries** and **Xcode versions.**
* Integrated **CocoaPods** with private repositories **(Artifactory, GitHub Packages, Bitbucket, etc.)** for internal iOS libraries.
* Optimized **Xcode build** performance by managing **CocoaPods caching and pre-built** frameworks.
* Configured Carthage and **Swift Package Manager (SPM**) as alternative dependency managers when required.
* Managed **JFrog Artifactory** repositories for storing and distributing **Android and iOS** application artifacts **(AAB, APK, IPA).**
* Automated **Android and iOS** artifact uploads to **Artifactory** using **Jenkins pipelines** and REST APIs. Implemented **Artifactory** cleanup policies to remove old artifacts and optimize storage usage.
* Integrated **Artifactory with Gradle** (Maven repositories) and **CocoaPods** for dependency resolution.
1. **Client: Orange Telecommunications. (Accenture Solutions Private Limited)**

**Duration: May 2015 – Jun 2019**

**Role: AWS & DevOps Engineer**

**Responsibilities / Deliverables:**

* Automated application deployment across development, staging, and production environments using **AWS Code Deploy,** ensuring error-free and consistent deployments.
* Created and optimized **CI/CD pipelines** using **AWS Code Pipeline**, integrating different stages like source control, build, test, and deployment, all managed via Terraform.
* Provisioned infrastructure using **Terraform** for **AWS services** such as **EC2, ECS, EKS, EBS, S3, CloudFront, IAM, Security Groups, Auto Scaling, and CloudWatch Monitoring.**
* Designed and provisioned **ECS clusters** with **Terraform to run containerized** applications and automated scaling based on workload demand for optimal performance.
* Designed and deployed **Amazon EKS clusters using Terraform,** automating Kubernetes infrastructure for scalable application deployments.
* Managed the configuration of **EKS worker nodes, VPC networking, subnets, and security groups** with **Terraform** to ensure secure and efficient cluster operations.
* Integrated **EKS** clusters with **CI/CD pipelines**, automating the deployment and scaling of Kubernetes workloads.
* Implemented Kubernetes resources like services, deployments, and ingress rules with **Terraform** for automated infrastructure management.
* Managed **IAM roles,** Kubernetes **RBAC, and network policies** using **Terraform**, enforcing security best practices within the **EKS environment**.
* Developed **Terraform** modules to automate **AWS Lambda functions,** integrating them with services like **S3, SNS, and DynamoDB** for event-driven architectures.
* Automated the provisioning of **RDS instances (MySQL, PostgreSQL)** and managed security configurations such as **IAM roles, VPC security groups**, and encryption with **Terraform**.
* Deployed and configured **AWS Storage Gateway** to connect on-premises environments with cloud storage. Set up file and tape gateways to efficiently manage hybrid cloud storage solutions, enabling seamless data transfers between local data centers and AWS cloud.
* Utilized **AWS S3 and Glacier** for cost-efficient storage and data lifecycle management, implementing policies that automatically transitioned data from S3 to Glacier based on retention requirements. Ensured optimized storage costs while maintaining compliance with data archival standards.
* Developed **Terraform** scripts to automate the deployment of AWS services, including the configuration of **Storage Gateway, S3, Glacier, and VPCs.** Created reusable and modular Terraform code to maintain infrastructure consistency across environments and ensure rapid, error-free deployments.
* Built **CloudFormation** templates to automate the setup and management of AWS infrastructure components, including secure storage environments using **Storage Gateway, S3, and Glacier.** Streamlined deployment processes by implementing infrastructure as code (IaC) best practices for scalability and flexibility.
* Designed and implemented backup and recovery solutions using **AWS Storage Gateway, integrated with S3 and Glacier.** Ensured secure and compliant backups with automated failover and disaster recovery strategies, reducing downtime and data loss risks in case of system failures.
* Managed **DynamoDB tables** with **Terraform**, optimizing them for high-throughput applications with automatic scaling.
* Containerized applications using **Docker**, managing **Docker images,** and automated deployment through CI/CD pipelines, ensuring consistent environments across development, testing, and production.
* Managed **Kubernete**s cluster upgrades, scaling, and deployments using EKS, implemented RBAC, network policies, and pod security standards for enhanced security.
* Set up monitoring solutions for **Kubernetes** clusters using Prometheus and **Grafana**, and implemented centralized logging with Fluent and the **ELK stack.**
* Automated **Kubernetes** deployments, scaling, and management of applications using CI/CD pipelines integrated with **Terraform**.
* Implemented disaster recovery strategies for **Kubernetes** clusters, ensuring backups and recover ability of critical resources like Persistent Volumes.
* Used **Helm** to package and deploy applications in **Kubernetes**, managing charts and releases, and created Kubernetes Custom Resource Definitions (CRDs).
* Diagnosed and resolved performance and deployment issues in **Kubernetes** clusters, continuously optimizing for scalability and cost efficiency.
* Integrated **SonarQube** with CI/CD pipelines, automating code quality analysis, and enforcing code quality gates across multiple projects.
* Developed, tested, and optimized **Bash and Python scripts** for automating environment setups, deployment processes, and system monitoring.
* Managed the build and deployment processes for Java applications, troubleshooting build and deployment issues, and maintained Nexus repositories for Maven artifacts.
* Automated Jenkins setup and plugin configurations using Groovy scripts, and integrated tools like **Git, Bitbucket, Maven, Ant, Terraform, and Ansible into CI/CD workflows.**
* Developed and maintained Ansible playbooks for provisioning and configuring infrastructure, automating complex deployments and ensuring consistent environments.
1. **Client: UnitedHealth Group India**

**Duration: Nov 2012 – May 2015**

**Role: DevOps Engineer**

**Responsibilities / Deliverables:**

* Designed and implemented **Jenkins pipelines** for **continuous integration and continuous deployment (CI/CD)**, automating the build, test, and deployment processes.
* Configured and managed **Jenkins** jobs, including freestyle projects, pipelines, and multibranch pipelines, ensuring efficient and reliable execution of build and deployment tasks.
* Optimized **Jenkins** pipelines for performance and reliability, reducing build times and minimizing failures through efficient scripting and parallel execution strategies.
* Installed, configured, and managed **Jenkins** plugins to extend functionality and integrate with various tools and services, such as version control systems, build tools, and notification systems.
* Automated build and deployment processes using **Jenkins**, including managing artifact repositories and deploying applications to various environments.
* Managed and configured **Jenkins** environments, including setting up and maintaining **Jenkins** agents and ensuring proper configuration of master and slave nodes.
* Identified and resolved issues in **Jenkins** jobs and pipelines, including debugging build failures and pipeline errors to ensure smooth and uninterrupted operations.
* Designed and **implemented** **containerization** strategies using **Docker**, encapsulating applications and their dependencies into **Docker** **containers** to ensure consistency across development, testing, and production environments.
* Developed and maintained **Dockerfiles** for building custom **Docker** **images**, **optimizing image layers**, and ensuring efficient and secure image creation.
* Automated deployment processes using **Docker**, integrating with **CI/CD pipelines** to streamline application deployment and updates across different environments.
* Identified and resolved issues related to **Docker containers and images**, including debugging container failures, managing logs, and providing support for containerized applications.
* Deployed, configured, and managed **Kubernetes clusters**, ensuring high availability, scalability, and reliability of containerized applications.
* Implemented and maintained container orchestration using **Kubernetes**, **automating deployment, scaling, and management** of containerized applications.
* Managed **Kubernetes pods, services, and deployments**, ensuring proper configuration and operation of microservices and application components.
* Configured **Kubernetes networking, including services, ingress controllers, and network policies**. Implemented security best practices, such as R**ole-Based Access Control (RBAC), Network Policies, and Secrets management.**
* Monitored and optimized resource usage within **Kubernetes clusters,** including managing **CPU, memory, and storage resources** for efficient operation.
* Integrated **Kubernetes** with **CI/CD pipelines** to automate deployment processes, streamline application updates, and ensure continuous delivery of applications.
* Managed **Kubernetes** cluster upgrades and routine maintenance, ensuring minimal disruption to services and compatibility with application requirements.
* Implemented monitoring and logging solutions for Kubernetes clusters using tools like **Prometheus, Grafana, and ELK stack**, ensuring visibility into cluster performance and application health.
* Provided troubleshooting and support for Kubernetes-related issues, including diagnosing and resolving cluster failures, application errors, and performance problems.
* Developed and maintained documentation for **Kubernetes** deployments, configurations, and best practices. Provided training and support to team members on Kubernetes usage and management.

**Education Qualifications:**

**Master’s degree** in 2012, from Jawaharlal Nehru Technological University, Hyderabad, India.

**Bachelor’s degree** in 2008, from Osmania University, Hyderabad, India.

**AWS Certifications:**

* AWS Certified Solutions Architect - Associate certificate
* Certified Kubernetes Administrator (CKA).