Charan Surya Nikhil Kilana

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# **Professional Summary**

# DevOps Engineer with 3+ years of experience in automating infrastructure, CI/CD pipelines, and cloud-native deployments across AWS and Kubernetes environments. Proficient in Terraform, Ansible, Jenkins, GitHub Actions, ArgoCD, and Docker, with expertise in building scalable, secure, and cost-optimized infrastructure. In observability, monitoring using Prometheus, Grafana, EFK, CloudWatch, and Splunk.

# **Education**

**University of Texas Dallas** – M.S, Information Technology and Management May 2025

**GITAM University India** – Bachelor of Technology, Computer Science June 2021

# **Skills**

**Languages & Scripting: Python, Bash, Groovy, YAML, XML**

**Databases: PostgreSQL, SQL Server, DynamoDB**

**Cloud Services: AWS (EC2, EBS, S3, ECS, ECR, EKS, Route53, CloudWatch, Lambda, SQS, SNS)**

**DevOps Tools: Git (GitHub, GitLab, BitBucket), Jenkins, GitHub Actions, Docker, Kubernetes, ArgoCD, Ansible, Terraform**

**Observability & Methodology:** Prometheus, Grafana, EFK, CloudWatch, Splunk, Agile/Scrum

# **Certification**

[HashiCorp CertifiedTerraform Associate](https://www.credly.com/badges/d1880da6-7b69-493f-81f1-06fd7d2ee617/public_url), [AWS Certified Solution Architect](https://cp.certmetrics.com/amazon/en/public/verify/credential/6f9ec4defafa4dcab708e94297dcd117), [AWS Certified Cloud Practitioner](https://www.credly.com/badges/4a82a65e-b5c8-4ca6-a4b5-d6c8d301ee91/public_url)

# **Professional Experience**

## Software Engineer

**Adroit Associates LLC | Dallas, TX | Jan 2025 – present**

* Migrated around 120 on-premises RHEL servers to AWS RHEL instances, provisioning infrastructure with Terraform. Automated server configuration and middleware setup like WebSphere using Ansible for Java application deployments.
* Implemented CI/CD with Jenkins, integrating Checkmarx for code quality, automated testing, and building EAR artifacts stored in Nexus. Containerized applications with Docker and pushed images to Docker Hub.
* Deployed applications on Kubernetes clusters using Helm, managing pods, services, and deployments. Configured ArgoCD for GitOps based automation, ensuring seamless rollouts with minimal manual intervention.
* Established observability with CloudWatch, Prometheus, Grafana, and Splunk for log management. Configured Slack notifications and SLA/SLO-based alerting to proactively monitor and resolve production issues.
* Executed a POC with CAST AI on clusters to automate cost optimization achieving up to 45% reduction.

## DevOps Engineer

**Infosys | Hyderabad, India | Jan 2021 – Jun 2023**

* Implemented Jenkins/GitHub action pipelines for Java/Python services, integrating SonarQube and Trivy for quality and security checks. Automated artifact management with Nexus/ECR and streamlined deployments to Amazon EKS using Helm and ArgoCD.
* Containerized microservices with Docker and applied best practices to reduce image sizes by 70%. Enhanced efficiency by improving build speed and deploying optimized containers across multiple environments.
* Developed Ansible playbooks for consistent server configuration and tool setup. Automated environment provisioning to reduce manual errors and accelerate delivery of infrastructure components.
* Designed and maintained Terraform modules to provision EKS clusters and AWS resources. Ensured reliability with S3 backend and DynamoDB state locking, preventing concurrent modifications during infrastructure automation.
* Strengthened Kubernetes operations by right-sizing resources, implementing safe rollbacks with ArgoCD, and adopting Blue-Green deployments, Canary, Rolling update.
* Built Grafana dashboards with RBAC and configured Prometheus alerts to monitor system health, ensuring reduction in MTTR.
* Implemented AWS cost optimization by developing an AWS Lambda function in Python to automatically identify and delete unattached or stale EBS snapshots automated the process using CloudWatch Events.

# **Projects**

* **End-to-End Multi-Language Microservice Deployment (**[**LINK**](https://github.com/charan-kilana/End-to-End-Microservices-on-Amazon-EKS-with-RabbitMQ-Postgres-and-MongoDB.git)**) (**[**LINK**](https://github.com/charan-kilana/Observability-EKS-OpenTelemetry-Prometheus-Grafana-EFK-Jaeger)**):** Automated CI/CD for eight services using GitHub Actions, Jenkins, and Docker with Slack notifications. Deployed on Amazon EKS via Helm and ArgoCD with NGINX Ingress + ALB. Enhanced observability by integrating Prometheus-Grafana, EFK, and Open Telemetry with Jaeger, improving debugging efficiency.
* **Claude AI Model Context Protocol Integration (**[**LINK**](https://github.com/charan-kilana/MCP-Claude-AI)**):** Built and integrated custom MCP servers with Claude AI to enable real-time external data retrieval, streamlining AI-augmented workflows and enhancing automation.
* **ML Pipeline with DVC & MLflow (**[**LINK**](https://github.com/charan-kilana/MLOPS_WinEq)**):** Built reproducible ML workflows using DVC for dataset/model versioning with AWS S3 as remote storage. Integrated MLflow for experiment tracking, logging metrics, and managing model artifacts, while automating retraining and deployment through GitHub Actions CI/CD pipelines.