SIRISHA MEKALA
DevOps Engineer
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PROFESSIONAL SUMMARY

- Certified DevOps and Cloud Infrastructure Engineer with 4+ years of experience delivering scalable, secure, and compliant solutions across AWS, Azure, and GCP using Terraform, Kubernetes, and GitHub Actions.
- Proven expertise in building end-to-end CI/CD pipelines, container orchestration, infrastructure automation, and SRE practices to improve deployment velocity, platform stability, and service reliability.
- Strong background in integrating DevSecOps controls, secret management, and monitoring with tools like Vault, Trivy, Prometheus, and Grafana, ensuring secure pipelines and audit-ready environments.
- Adept in supporting cross-cloud architectures, production-grade microservices, and platform engineering workflows in Agile/Scrum environments across BFSI, healthcare, and SaaS domains.

TECHNICAL SKILLS

Cloud Platforms: AWS (EC2, S3, Lambda, RDS, EKS, CloudWatch, IAM, KMS, SSM), Azure (AKS, VMSS, App Gateway, Key Vault, Monitor, Log Analytics), GCP (GKE, Compute Engine, Cloud Build, Cloud Storage, Pub/Sub, Cloud Functions)

Infrastructure as Code (IaC): Terraform, AWS CloudFormation, Pulumi, Ansible, Chef, Puppet

CI/CD & Release Automation: GitHub Actions, Jenkins, GitLab CI/CD, Azure DevOps, ArgoCD, Spinnaker, CircleCI, Harness

Containerization & Orchestration: Docker, Kubernetes (EKS, AKS, GKE), Helm, Kustomize, Docker Compose, Containerd

Monitoring, Logging & Observability: Prometheus, Grafana, ELK Stack (Elasticsearch, Logstash, Kibana), Fluentd, Splunk, New Relic, Dynatrace, Loki, AWS CloudWatch, Azure Monitor

DevSecOps & Security Automation: HashiCorp Vault, AWS KMS, Azure Key Vault, IAM, Snyk, Trivy, Aqua Security, Falco, Anchore, Open Policy Agent (OPA), CIS Benchmarks

Scripting & Automation: Python, Bash, PowerShell, Shell, Groovy, YAML, JSON, HCL

Version Control & Collaboration: Git, GitHub, GitLab, Bitbucket, Jira, Confluence, Azure Repos

Operating Systems & System Tools: RHEL, Ubuntu, CentOS, Debian, Amazon Linux, Windows Server, Systemd, Crontab

Message Brokers & Middleware: Apache Kafka, RabbitMQ, Redis, Amazon SQS, Google Pub/Sub

Databases: MySQL, PostgreSQL, MongoDB, DynamoDB, Aurora, SQLite

PROFESSIONAL EXPERIENCE

Cloud DevOps Engineer   **Feb 2025 - Present**
ASTRANA Health | Alhambra, CA

- Built HIPAA-compliant AWS infrastructure with Terraform and CloudFormation, allowing reproducible multi-region deployments and cutting environment setup time by over 60%.
- Introduced modular CI/CD pipelines using GitHub Actions with branch-based approvals and automated rollback, which improved release quality and reduced manual intervention by 70%.
- Containerized ML inference services and orchestrated deployment on EKS, supporting real-time healthcare analytics with 99.99% uptime for patient outcome dashboards.
- Developed a Jenkins-integrated Python validator for EDI 834/837 files that identified formatting anomalies early, decreasing payer rejections by 38% over two quarters.
- Applied fine-grained IAM controls, S3 encryption with KMS, and audit logging to secure PHI workloads, which enabled full compliance in recent HIPAA audits without remediation tasks.
- Visualized key Kubernetes metrics—CPU saturation, memory limits, and pod latency—via Prometheus and Grafana, helping SRE teams cut MTTR by 40% through proactive alerting.
- Hardened secret handling across CI/CD pipelines by centralizing credentials in Vault and applying dynamic secrets policies, eliminating credential leaks and configuration drift.

Cloud DevOps Engineer Intern   **Jul 2024 - Feb 2025**
The COMMONS XR — San Diego, CA

- Executed full-scale Azure-to-GCP migration by architecting GKE-based infrastructure with Identity-Aware Proxy, which reduced latency by 25% and lowered cloud costs by 18%.
- Built reusable Terraform modules for provisioning GKE clusters, IAM roles, and network configurations, enabling consistent multi-environment deployments within 30 minutes.
- Containerized legacy services into microservices using Docker and Helm, then deployed to AKS and GKE with canary strategies that improved release stability and rollback speed.
- Implemented HPA configurations and admission controllers in Kubernetes clusters to ensure optimal autoscaling and enforce workload security during high traffic events.
- Designed fault-tolerant MySQL architecture with multi-AZ replication and automated backups, ensuring high availability and eliminating data loss during failover testing.
- Developed GitLab CI/CD pipelines with Trivy scans, linting, and artifact versioning, while configuring Filebeat and Kibana to reduce incident resolution time by 30%.

Cloud DevOps Engineer   **May 2021 - Jul 2022**
DXC Technology | Chennai, India
- Delivered infrastructure automation and DevSecOps solutions for BFSI and telecom clients undergoing hybrid cloud transformation.
- Automated CI/CD workflows for Java and .NET apps using Azure DevOps and GitHub Actions, streamlining deployments and reducing manual errors by over 60%.
- Created infrastructure templates using Terraform to build AWS and Azure environments with consistent VPCs, subnets, and EC2 setups, minimizing drift across regions.
- Set up Prometheus metrics exporters and Grafana visualizations to track SLI violations in production, helping teams cut SLA breach incidents by 22%.
- Applied Ansible to orchestrate multi-tier deployments and enforce baseline configurations across dev, QA, and prod, improving patch reliability across 100+ hosts.
- Configured secure VPN connections between cloud and on-premise data centers using route tables and NAT gateways, enabling uninterrupted access for financial platforms.
- Wrote Bash scripts to automate database backups and applied cron-based rotation strategies, ensuring recovery points were always current during load-testing phases.
- Integrated Snyk and OpenSCAP security scans into build pipelines to detect vulnerabilities pre-release, contributing to a 47% drop in unpatched CVEs in production.

Linux System Administrator Intern   Jun 2020 - May 2021
DXC Technology | Chennai, India
- Managed over 150 RHEL and Ubuntu production servers, maintaining 99.95% uptime through continuous monitoring, alert remediation, and system health checks.
- Reduced recurring vulnerabilities by 35% by executing scheduled patch cycles, kernel upgrades, and Nessus-based remediation plans across enterprise systems.
- Automated user provisioning, disk auditing, and log management using Bash scripts, improving system consistency and reducing manual workload across teams.
- Strengthened perimeter defense by securing services like SSH and DNS, while auditing iptables rules to limit access and harden network configurations.
- Improved incident resolution speed by 40% using tcpdump and journalctl to trace system faults, enabling quicker root cause identification during outages.
- Scheduled automated backups and cron-driven system checks, ensuring reliable restore points and eliminating missed backup events during nightly runs.

PROJECTS
Healthcare DataOps & Security Automation Pipeline
- Architected a fully automated CI/CD pipeline on GitHub Actions for healthcare data services, integrating Python-based EDI validation modules and enabling secure container deployment to AWS EKS with zero manual touchpoints.
- Configured HIPAA-aligned S3 storage with KMS encryption and IAM role-based access, while enforcing data-level logging through CloudTrail and real-time alerts for compliance traceability across patient data assets.
- Implemented Vault for secret rotation and permission scoping, coupled with Prometheus monitoring of ML workflows and X12 batch jobs, which improved data quality processing time and reduced claim rejection rates by 30%.

Cross-Cloud Infrastructure Automation for XR Streaming
- Built and deployed Terraform modules to orchestrate cloud-agnostic infrastructure on both Azure and GCP, streamlining deployment of GKE clusters and Azure resources for XR streaming environments within minutes.
- Leveraged GitLab CI/CD to automate container image builds, Helm-based deployments, and enforcement of Trivy scans for runtime security, blocking unsafe image pushes and reducing post-deployment vulnerabilities.
- Tuned pod autoscaling thresholds and network policies across clusters, enabling adaptive resource provisioning under real-time traffic and ensuring uninterrupted delivery of immersive XR content during load peaks.

EDUCATION
Master of Science in Information Systems and Technology   **Aug 2022 - May 2024**
University of North Texas | Denton, TX
Bachelor of Technology in Electronics and Communication Engineering   **Aug 2017 - May 2021**
Jawaharlal Nehru Technological University | Kakinada, India

CERTIFICATIONS
- AWS Certified Solutions Architect - **Associate**
- Azure Administrator Associate - **Microsoft Certified**
- Azure Fundamentals (AZ-900) - **Microsoft Certified**