GOPALA KRISHNA AKKINENI

DevOps Engineer

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PROFESSIONAL SUMMARY

DevOps Engineer with 4+ years of experience building and running cloud infrastructure on AWS, GCP and Azure. I build CI/CD pipelines, run Kubernetes clusters (EKS, GKE, AKS), and manage infrastructure as code with Terraform and CloudFormation. Most of my recent work supports AI/ML teams: GPU-enabled clusters, secrets management, and monitoring that keeps model services available. Cut release cycles by 40%, lowered infrastructure costs by 15%, and kept systems at 99.9% uptime. Comfortable working in Agile/Scrum teams with developers, QA and ML engineers.

TECHNICAL SKILLS

Cloud: AWS (EC2, EKS, Lambda, RDS, S3, IAM, Route 53, CloudWatch, SageMaker, Bedrock), GCP (GKE, BigQuery, Cloud Functions, Cloud Storage), Azure (AKS, Key Vault, Blob Storage)

Infrastructure as Code: Terraform, CloudFormation, GCP Deployment Manager, Bicep, tflint

CI/CD and GitOps: GitHub Actions, Jenkins, Azure DevOps, Buildkite, ArgoCD, FluxCD, Argo Rollouts, blue-green and canary deployments

Containers and Orchestration: Docker, Docker Compose, Kubernetes (EKS, GKE, AKS), Helm, kind, NVIDIA GPU nodes

Monitoring and Logging: Prometheus, Alertmanager, Grafana, ELK Stack, CloudWatch, Azure Monitor, SLOs and error budgets

Security: HashiCorp Vault, AWS Secrets Manager, GCP Secret Manager, SonarQube, Snyk, Trivy, hadolint, IAM least privilege

Scripting and OS: Python, Bash, Shell, Linux administration, Nginx

Tools and Practices: Git, GitHub, GitLab, JIRA, Rally, Agile/Scrum, incident response, root cause analysis

PROFESSIONAL EXPERIENCE

DevOps Engineer (AWS/GCP) **Mar 2025 – Present**

State Farm, Bloomington, IL

- Led the design and build of multi-cloud infrastructure on AWS and GCP for end-to-end AI/ML model training, deployment and monitoring.
- Built and maintained CI/CD pipelines in GitHub Actions, Jenkins and Buildkite, cutting release cycles by 40%.
- Provisioned and secured cloud infrastructure with Terraform and CloudFormation, keeping services at 99.9% uptime.
- Managed EKS and GKE clusters, wrote Helm charts, set up GitOps with ArgoCD and FluxCD, and configured autoscaling for high-traffic applications.
- Ran GPU/TPU-enabled clusters for deep learning workloads, reducing training and inference times by up to 30%.
- Rolled out blue-green and canary deployments for zero-downtime releases, reducing service interruptions by 95%.
- Wired SageMaker, Bedrock and Hugging Face into deployment pipelines so ML teams could ship models without manual steps.
- Set up secrets management with Vault, AWS Secrets Manager and GCP Secret Manager to meet compliance requirements.
- Built monitoring with Prometheus, Grafana, CloudWatch and the ELK Stack, catching problems earlier and reducing downtime by 25%.
- Automated monitoring and scaling for GPU-based ML workloads, lowering costs by 15% without losing performance.
- Worked with data scientists and ML engineers to deploy LLM-based applications to production.
- Handled incident response and root cause analysis, and documented fixes to prevent repeat issues.

Cloud/DevOps Engineer **May 2022 – Jun 2023**

Amistad Technologies, Hyderabad, India

- Provided L1/L2 support for AWS services (EC2, S3, IAM) and resolved networking incidents with 95% SLA adherence.
- Configured and troubleshot CI/CD pipelines in Jenkins, GitHub Actions and Azure DevOps, making deployments more reliable.
- Automated backups, log archiving and IAM provisioning with Bash and Python scripts running on AWS Lambda.
- Wrote reusable Terraform modules for S3 buckets, IAM roles and EC2 instances, cutting manual provisioning by 50%.
- Set up CloudWatch alarms, dashboards and log filters to spot issues before users did.
- Supported disaster recovery tests by validating backup restores and DNS failover.
- Worked with DevOps and InfoSec teams to rotate IAM credentials, enforce least-privilege access and manage secrets.
- Found underused AWS resources and automated their shutdown, reducing costs by 10%.
- Checked infrastructure readiness during release windows, cutting deployment failures by 20%.

Cloud/DevOps Engineer **Mar 2021 – Feb 2022**

Taal Tech, Bengaluru, India

- Supported deployment and maintenance of AWS, Azure and GCP environments, provisioning EC2 instances, virtual machines and storage.
- Configured IAM roles, security groups and key rotation to keep access secure and in line with internal standards.
- Wrote Shell and Python scripts to automate health checks, log collection and cleanup, reducing manual monitoring.
- Contributed to Terraform and CloudFormation templates for consistent, version-controlled environments.
- Helped set up Jenkins and GitHub Actions pipelines to automate build, test and deployment for internal applications.
- Monitored performance with AWS CloudWatch and Azure Monitor and escalated issues early.
- Troubleshot Kubernetes issues such as pod restarts, configuration errors and resource limits.
- Wrote runbooks and onboarding docs during Agile sprints.

Linux Administrator **Jul 2020 – Feb 2021**

Ignitarium, Kochi, India

- Set up and troubleshot Linux servers for development teams and monitored server health.
- Wrote shell scripts for user provisioning, file management, process monitoring and scheduled backups.
- Managed user permissions, cron jobs and log rotation for secure, stable servers.
- Handled system patching, kernel updates, package installs and security hardening to meet company standards.
- Worked with developers to fix application performance bottlenecks.

PROJECTS

GitOps Canary Rollouts

Tools: Helm, Argo Rollouts, ArgoCD, kind, GitHub Actions, kubeconform, Trivy

- Helm chart that ships a service as a 20% / 60% / 100% canary with automated health checks; ArgoCD keeps the cluster synced to Git.
- CI spins up a real kind cluster, ships a good release and a broken one, and confirms the broken one is stopped while users stay on the last good version.

Observability Stack

Tools: Prometheus, Alertmanager, Grafana, Docker Compose, Python, promtool

- One-command monitoring stack with recording rules, SLO-based error budget burn alerts and a Grafana dashboard provisioned as code.
- Alert rules have unit tests; CI starts the full stack and checks that a real alert fires and reaches Alertmanager.

Terraform AWS EKS GPU Cluster

Tools: Terraform, AWS EKS, VPC, NVIDIA GPU nodes, Spot instances, tflint, Trivy

- EKS cluster with a tainted GPU node group on Spot that scales to zero when idle, so GPUs only cost money while a job runs.
- API access is locked to listed IPs; CI runs terraform validate, tflint and a Trivy scan on every push.

Portfolio Site Run as a Production Service

Tools: GitHub Actions, Docker, Nginx, Trivy, hadolint, GitHub Pages, Python

- Every push runs HTML validation, link checks, a Trivy scan and a container smoke test before deploying; a scheduled health check tracks uptime at $0 cost.

EDUCATION

Master of Science, Management Information Systems, University of Illinois Springfield, Springfield, IL — Dec 2024

Bachelor of Technology, Electronics and Communication Engineering, Aditya University, Andhra Pradesh, India — Apr 2023

Diploma, Electronics and Communication Engineering, AANM & VVRSR Polytechnic, Andhra Pradesh, India — Apr 2020