## **ASHWATH ABRAHAM STEPHEN**

# Senior DevOps Engineer | CI/CD Automation | Cloud Infrastructure | Kubernetes Expert

+91 9741789167 • ashwathstephen@gmail.com • <u>linkedin.com</u> • Bangalore,India

## Summary

Senior DevOps Engineer with hands-on experience building and operating cloud-native and self-hosted infrastructure across AWS, Azure, and bare-metal environments. Proven track record in designing automated CI/CD pipelines (Jenkins, Spinnaker), managing Kubernetes at scale (EKS, K3s, self-hosted), building Terraform-driven infrastructure, and implementing deep observability using Prometheus, Grafana, Alertmanager, Fluent Bit, and OpenSearch.

Experienced in cloud and on-prem deployments, Ansible-based server automation, Linux hardening, and incident response in lean-team environments. Skilled at improving reliability, reducing deployment failures, optimizing costs, and enabling fast, safe releases for high-traffic systems.

Comfortable owning infrastructure end-to-end in small DevOps/SRE teams and building reliable systems without large operational support structures.

## Experience

## The Cool Company

Bangalore, India (Remote)

07/2025 - Present

## DevOps Engineer

- Designed and operated self-hosted Kubernetes (bare-metal) clusters, handling control-plane upgrades, node provisioning, networking, certificate rotation, backups, and overall cluster health.
- Architected hybrid cloud-to-bare-metal K8s migration, achieving 60% TCO reduction vs. equivalent public cloud scaling.
- Automated provisioning and configuration of on-prem servers using Ansible, reducing manual work across more than 50 nodes and eliminating configuration drift.
- Built and optimized an HAProxy-based ingress layer capable of handling high-throughput, bursty ad-tech traffic with zero-downtime reloads and advanced routing logic.
- Scaled low-latency ad-tech workloads (bidding flows, high-QPS services) to remain stable during traffic spikes and peak holiday
- Deployed and maintained Aerospike, Superset, and Airflow clusters including high-availability configuration, performance tuning, monitoring, and backup strategies.
- Built a complete observability ecosystem with over 100 Grafana dashboards covering infrastructure health, business KPIs, latency percentiles, throughput, GC behavior, queue depth, error budgets, and SLO burn-rate analysis.
- Implemented proactive monitoring and alerting using Prometheus, Grafana, and Alertmanager, improving MTTR and enabling early detection of node failures, resource pressure, pod stalls, and latency anomalies.
- Led multiple high-impact production incidents (DNS failures, PV issues, Aerospike latency spikes, HAProxy regressions, pod scheduling starvation), restoring service under strict SLAs.
- Built CI/CD workflows for hybrid on-premises and cloud deployments, ensuring consistent and reliable releases across heterogeneous environments.
- · Strengthened security through Linux hardening, SSH access controls, and improved secret management.
- Implemented automated backup and restore pipelines for critical workloads, improving operational continuity and reducing manual recovery efforts.
- Collaborated with backend, data, and ad-serving teams to optimize performance, reduce tail latencies, and harden systems for high-traffic patterns.

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# Senior DevOps Engineer

04/2024 - 07/2025

- Designed and maintained reusable Jenkins shared libraries and Spinnaker pipelines, reducing pipeline duplication by 65% and improving deployment frequency by 3x.
- Automated environment provisioning using Terraform and Rancher Fleet, cutting manual infra tasks by 80% and enabling on-demand test environments.
- Built auto-rollback and validation logic into pipelines, reducing release failures by 70% and improving production stability.
- Integrated code quality gates (Checkmarx), compliance checks, and Slack-based approvals to ensure security and governance in every deployment.
- Optimized build and deployment workflows, bringing average deployment time down from 25 to under 8 minutes across 200+ microservices
- Implemented blue-green deployment across 200+ microservices, reducing deployment downtime to under 30 seconds per release.
- Resolved application-specific challenges, including session persistence and schema migrations, ensuring seamless traffic transitions and achieving an 85% reduction in rollback incidents.
- · Standardized Helm chart structure for internal teams, cutting onboarding time for new services from days to hours.
- Mentored 3+ junior engineers, led CI/CD knowledge-sharing sessions across teams, and drove org-wide adoption of pipeline best practices.

## Experience

CongaBangalore, IndiaDevOps Engineer05/2023 - 03/2024

Refactored existing CI/CD pipelines to integrate artifact promotion, dynamic environment creation, and rollback strategies, cutting
release cycle time by 60%.

- Containerized and migrated legacy Java and Python services to Docker and deployed on EKS with auto-scaling and readiness/liveness probes.
- Architected and deployed DR solutions for over 200 services on AWS, achieving a Recovery Time Objective (RTO) of under 10 minutes and a Recovery Point Objective (RPO) of less than 5 minutes.
- Integrated continuous data replication and automated failover mechanisms, enabling swift and reliable switchover and fallback processes, ensuring zero data loss during DR drills and actual failover events.
- Enhanced internal tooling by writing Groovy and Shell scripts for build orchestration, pipeline linting, and secret rotation.
- Implemented S3-backed Terraform state management with remote locking and versioning for production safety.
- Conducted cost optimization workshops, reducing EC2 usage and improving AWS compute spend by ~25%.
- Led deployment of diverse microservices based on React, Angular, Java, and Python. Achieved a 60% reduction in deployment time through automation of CI/CD workflows.
- · Utilized Rancher, Prometheus, and Doppler for enhanced visibility and cluster management.

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### Associate DevOps Engineer

07/2021 - 04/2023

- Built foundational Terraform IAC modules for VPCs, IAM policies, and EC2-based services to support cloud-native migrations.
- Implemented CloudFront, Cloudflare, and Nginx for seamless load-balanced routing and zero-downtime upgrades.
- Developed templatized Helm charts to streamline deployment of stateless and stateful services across dev, staging, and prod clusters.
- Automated CI integrations using Jenkins, introducing parallelism and caching, reducing average build times from 20 minutes to under 8 minutes.
- Contributed to centralized monitoring and logging stack using Grafana, Rancher, and CloudWatch Logs, improving incident detection.
- Participated in daily Agile ceremonies, code reviews, and postmortems to reinforce DevOps-first culture and continuous improvement.

### Skills

Cloud: Azure · AWS

CI/CD: Jenkins · Spinnaker · GitHub Actions · Rancher Fleet · CircleCI

IAC & Automation: Terraform · Groovy · Shell · Python

Containers & Orchestration: Docker · Kubernetes · EKS · K3s · Bare-Metal · Helm

Monitoring: CloudWatch · Prometheus · Grafana · Alertmanager · OpenSearch · Fluent Bit · OpenTelemetry

Security: Checkmarx · IAM · WhiteSource

Tools: GitHub · JIRA · Linux · PowerShell

Data/Processing Tools: Aerospike, Airflow, Superset · Druid

Networking & Traffic: HAProxy · Nginx · Ingress Controllers

# Education

Ramaiah University of Applied Sciences

B.E. Computer Science

08/2017 - 06/2021

Bangalore, India