

SARTHAK SINGH

Mathura, UP | +91 70601 36700 | sarthaksingh6700@gmail.com | [LinkedIn](#) | [GitHub](#)

SUMMARY

Certified Kubernetes Administrator (CKA) with hands-on experience building production-style AWS and Kubernetes platforms using Infrastructure as Code, CI/CD, GitOps, and cloud automation. Skilled in Terraform, Jenkins, Argo CD, Helm, and Prometheus/Grafana.

KEY HIGHLIGHTS

- Certified Kubernetes Administrator (CKA).
- Built production-style AWS EKS and Terraform platforms implementing CI/CD, GitOps, and observability.
- Reduced deployment time from 12 min to 2 min using Jenkins Shared Libraries and automated build pipelines.
- Implemented GitOps using Argo CD, IRSA authentication, Helm-based deployments, Prometheus/Grafana observability, and multi-stage Docker builds across a 5-microservice platform.

EDUCATION

GLA University, Mathura, UP — B.Tech, Computer Science & Engineering — CPI: 7.6 / 10.0 Expected 2028

TECHNICAL SKILLS

Cloud: AWS (EKS, EC2, VPC, IAM, S3, Route 53, ALB, ASG, EBS, DynamoDB)

Containers & Orchestration: Docker, Docker Compose, Kubernetes, Helm (Umbrella Charts, Multi-Environment)

Infrastructure as Code: Terraform (Modules, Remote State, DynamoDB Locking), Ansible (Roles, Playbooks)

CI/CD & Version Control: Jenkins (Pipelines, Shared Libraries, Groovy) · Git · Argo CD (GitOps)

Linux & Scripting: Linux (Networking, Systemd, Permissions) · Bash · Python

Observability & Security: Prometheus · Grafana · kube-prometheus-stack · Alertmanager · IRSA

PROJECTS

AWS Retail Store — Production-Style Kubernetes Platform on EKS 2026 – Present

Stack: Kubernetes · Helm · AWS EKS · Terraform · Docker · Jenkins · Prometheus · Grafana | *GitHub:* github.com/Sarthakx67/retail-store-aws-deployment

- Built a 5-microservice e-commerce platform (Java, Go, Node.js) on AWS EKS across 3 availability zones, using Helm umbrella charts with separate dev and prod value files.
- Built a Jenkins shared library (Groovy) that auto-detects Maven, Go, and Node.js build tools, cutting deployment time from 12 minutes to 2 minutes and replacing 5 separate Jenkinsfiles with one 8-line file.
- Implemented GitOps deployments using Argo CD, synchronizing Kubernetes manifests from Git repositories to Amazon EKS.
- Reduced Docker image size from ~800MB to ~150MB using multi-stage builds (JDK build stage → JRE runtime), lowering ECR storage cost and pod cold-start time.
- Set up IRSA with OIDC federation so pods authenticate to DynamoDB using temporary STS tokens instead of hardcoded AWS credentials.
- Deployed a full observability stack with kube-prometheus-stack, building Grafana dashboards for per-service request rate, 5xx error rate, P95/P99 latency, CPU throttling, and memory saturation.

RoboShop — Multi-Environment AWS Infrastructure & CI/CD 2025

Stack: Terraform · AWS (VPC, ALB, ASG, Route 53, SSM) · Jenkins · Ansible | *GitHub:* github.com/Sarthakx67/RoboShop-Infra-Standard

- Provisioned fully isolated dev and prod AWS environments using 15+ Terraform modules, with S3 remote state and DynamoDB state locking so infrastructure changes don't collide.
- Designed a 3-tier architecture — public ALB, private microservice ASGs (2–5 instances), and isolated database subnets across 2 AZs — with no direct internet exposure to the app or data tiers.
- Built a blue-green deployment pipeline in Jenkins with a manual production approval gate; new AMIs are validated in staging, then a single service-selector change flips 100% of traffic and enables instant rollback.
- Automated configuration of 8 microservices (MongoDB, MySQL, Redis, RabbitMQ) with idempotent Ansible roles, cutting provisioning time from hours to under 10 minutes.

CERTIFICATIONS

- Certified Kubernetes Administrator (CKA) — The Linux Foundation, July 2026