

# MAYURESH SATAO

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## Summary

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DevOps / Cloud Engineer with 6+ years of experience designing and operating AWS infrastructure at scale. Hands-on expertise in Terraform, Kubernetes (EKS), CI/CD automation, cost optimization, and full-stack observability across production environments. Proven track record reducing deployment times by 85%, infrastructure costs by 40%, and maintaining 99.9% uptime for platforms serving 10,000+ daily users.

## Technical Skills

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**Cloud (AWS):** EC2, EKS, Lambda, S3, RDS, KMS, SNS, SQS, CloudFront, CloudWatch, IAM, CloudFormation, VPC

**Infrastructure as Code:** Terraform, Ansible, Helm, CloudFormation, AWS CDK, Deployment Manager

**Container Orchestration:** Kubernetes (EKS/GKE), Docker, Helm, Karpenter, Istio, Argo Rollouts

**CI/CD & Automation:** Jenkins (Groovy Pipelines), GitHub Actions, ArgoCD, GitLab CI, Automated Testing

**Observability:** Datadog, Prometheus, Grafana, CloudWatch, OpenTelemetry, ELK Stack, SLOs/SLIs/Error Budgets

**Security & Compliance:** KMS encryption, IAM least-privilege, RBAC, MFA, VPC isolation, audit logging, HIPAA

**Languages & Scripting:** Python, Go, Bash/Linux Shell Scripting, Groovy

**Data & Messaging:** PostgreSQL, Kafka, Redis, S3 Data Lake, RDS, DynamoDB, BigQuery

## Work Experience

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### Full-Stack Developer Co-op

*Jun 2024 – Dec 2024*

*Xellar Biosystems, Boston, MA*

- Architected AWS infrastructure for a regulated biomedical research platform using KMS encryption, VPC isolation, and least-privilege IAM policies aligned with HIPAA security requirements.
- Built large-scale data pipelines on AWS (Lambda, S3, SNS) processing 2TB/week of raw biological data with schema validation, transformation, and delivery to downstream analytics systems.
- Provisioned all infrastructure with Terraform and CloudFormation, maintaining fully reproducible, drift-free environments across dev, staging, and production.
- Architected CI/CD pipeline using GitHub Actions and ArgoCD, reducing deployment time from 2 hours to 8 minutes and enabling 30+ daily zero-downtime releases.
- Established full observability stack using CloudWatch, Datadog, Grafana, and Prometheus with alerting on pipeline health and error rates, catching issues before impacting research workflows.
- Implemented automated testing suite using Pytest and GitHub Actions, authoring 200+ unit and integration tests that reduced production defects by 30%.

### Senior Cloud Architect & Technical Lead

*Jul 2019 – Jul 2023*

*Geniobits Private Limited, Pune, India*

- Designed the full AWS cloud architecture for a multi-tenant SaaS platform serving 10,000+ daily users across 60+ enterprise accounts, built on EC2, RDS, Lambda, S3, KMS, and SNS.
- Automated all infrastructure provisioning with Terraform and Ansible, eliminating manual provisioning entirely and reducing infrastructure costs by 75% while supporting 50x traffic growth.
- Built Jenkins CI/CD pipelines from scratch using Groovy scripts with integrated security scanning stages; managed Kubernetes (EKS) with Helm using blue-green and canary deployment strategies.
- Designed disaster recovery architecture with automated RDS snapshots, S3 cross-region replication, and tested failover runbooks, achieving a sub-2-hour RTO for all critical services.
- Drove cloud cost optimization continuously: S3 lifecycle policies to Glacier cut storage costs by 40%, EC2 right-sizing and Reserved Instance planning reduced monthly AWS spend significantly.
- Enforced security at scale: KMS-encrypted storage, MFA, RBAC, and PostgreSQL row-level security for strict multi-tenant data isolation across all client accounts.
- Defined SLOs and error budgets monitored with Prometheus and Datadog burn-rate alerting, achieving 99.9% uptime across a platform handling 2M+ daily API calls.
- Led a team of 6 engineers, overseeing architecture decisions, code reviews, and production incident response.

**Junior Software Engineer Intern**  
*Umbrella Technologies, Pune, India*

*Sep 2017 – Jul 2019*

- Supported deployment and operations of Python and Java web services on Linux; coordinated with dev teams to resolve issues across dev, test, and production environments.
- Re-engineered slow, error-prone manual deployment processes with automated solutions, improving operational efficiency by 40%.

## Relevant Projects

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**Compliant Healthcare Data Platform**      *AWS, Terraform, Kubernetes, Kafka, PostgreSQL, Datadog, Prometheus*

- Designed compliance-focused cloud architecture on AWS with KMS encryption, VPC isolation, IAM least-privilege, audit logging, and automated RDS backups for sensitive health data at scale.
- Built a data lake and ingestion pipeline on S3 and RDS with Kafka-based streaming and cross-region replication for disaster recovery; tested sub-2hr RTO with Datadog dashboards for cost and reliability.

**Learning Management System**      *React, Django, Kubernetes (EKS), GCP, Istio, Karpenter, OpenTelemetry, Redis*

- Architected multi-tenant SaaS platform with auto-scaling Kubernetes infrastructure, encrypted secrets management (SOPS), and support for 15,000+ concurrent users with enterprise-grade security.
- Implemented Istio service mesh with OpenTelemetry for distributed tracing and custom metrics, reducing debugging time by 80% and enabling zero-downtime canary releases.

## Education

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**Northeastern University**

*Master of Science in Computer Engineering, GPA: 3.7/4.0*

Boston, MA

Sep 2023 – Dec 2025

**Pune University**

*Bachelor of Engineering in Computer Engineering*

Pune, India

Aug 2016 – May 2020