

Tanushree Kanbarkar, M.S. – Computer Information Science

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Site Reliability Engineer | Cloud Infrastructure | AI - Automation

Site Reliability Engineer with 4 years of experience designing and delivering fault-tolerant cloud infrastructure for high-availability systems. Spearheaded AWS automation across 100+ environments, cutting manual overhead by 40% and eliminating configuration drift. Architected robust CI/CD pipelines using Jenkins, Terraform, and Ansible, and led full-stack observability with Datadog, Prometheus, and Grafana. Directed critical on-call operations, executed root cause analysis, and implemented lasting remediations. At NBCUniversal, engineered Django and Flask-based telemetry dashboards that elevated platform reliability and executive decision-making. Enforced cloud security guardrails, integrated GenAI observability, and continued to drive reliability practices across AWS, GCP, and Azure ecosystems.

Core Strengths:

- Build and scale highly available infrastructure across cloud and hybrid environments.
- Proactive incident response, root cause analysis, and service-level improvements.
- Automate operations through Terraform, Ansible, and Jenkins CI/CD pipelines.
- Design observability frameworks to support performance tuning and rapid recovery.
- Integrate AI/ML capabilities for intelligent system behavior and decision automation.
- Collaborate cross-functionally to align technical solutions with business goals.
- Continuously learn and adopt emerging cloud and SRE practices.

Technical Stack:

- **Languages:** Python, Bash, Go (learning), Node.js, Java, Shell Scripting, C, C++, Groovy, JavaScript
- **DevOps & SRE:** Terraform, Ansible, Jenkins, CI/CD, Incident Management, Root Cause Analysis
- **Cloud Platforms:** AWS (primary), GCP (in progress), Azure (basic exposure)
- **AI/ML:** HuggingFace, TensorFlow (beginner), GenAI integration, LLMs, NLP
- **Databases & Messaging:** MySQL, Snowflake, Redis, Kafka, Solr (conceptual), Firebase
- **Observability:** Datadog, Prometheus, Grafana, SLO/SLI tracking, Alerting, and Telemetry Pipelines
- **Containers & Orchestration:** Docker, Kubernetes (EKS)
- **Monitoring & Delivery:** Akamai CDN, CloudFront, RTMP, HLS, Postman, ServiceNow, API Gateway, GitHub, Jira, WinSCP, LDAP

KEY QUALIFICATIONS

- **Cloud & Automation:** Deployed scalable, self-healing AWS infrastructure using Terraform and Ansible, improving consistency and reducing manual tasks by 40%.
- **Telemetry & Policy Enforcement:** Integrated Datadog and Prometheus for security telemetry and compliance monitoring. Participated in architecture reviews and enforced security standards with teams.
- **Secure Coding Practices:** Delivered secure code, logging, and validation in backend automation.
- **Cross-Functional Execution:** Worked with DevSecOps, InfoSec, and platform teams to harden systems.

PROFESSIONAL BACKGROUND

Tata Consultancy Services (NBC Universal), New Jersey, USA

Jan 2022 – Present

Site Reliability Engineer

- Automated AWS infrastructure deployment using Terraform and Ansible, reducing configuration drift and manual provisioning by 40%.
- Built observability stacks (Datadog, Prometheus, Grafana) to track SLIs/SLOs and reduce MTTR by 30%.

- Participated in global on-call rotations, providing end-to-end service reliability and leading postmortems.
- Partnered with DevSecOps to integrate policy guardrails, secure cloud rollouts, and enforce compliance across environments
- Managed high-availability content delivery workflows across Akamai, CloudFront, HLS, and RTMP.
- Contributed to global on-call rotations, providing end-to-end service reliability and leading postmortems.
- Led GenAI infrastructure readiness initiative, integrating telemetry for LLM-based system enhancements.
- Created internal observability dashboards using Python, Flask, and Django to visualize service health, alert trends, and infrastructure KPIs, improving response time and visibility across the team.

Tata Consultancy Services, USA

Oct 2021 – Dec 2021

Software Developer

- Developed end-to-end data workflows by architecting and managing robust pipelines, ensuring smooth data integration from external sources through API connections.
- Monitored and troubleshoot production data flows, proactively identifying issues and deploying fixes to maintain high uptime and streamline reliable, error-free operations.

Alphard Engineering Solutions LLP, India

Jan 2019 – Jun 2019

Web Development Intern

- Elevated system performance by optimizing legacy code, deploying seamless updates, and engineering key Python modules in collaboration with cross-functional teams for project success.

ATSSL, India

Jun 2018 – Dec 2018

Software Engineering Intern

- Coordinated end-to-end project lifecycle, from configuring and coding to comprehensive documentation, leading to precise execution and alignment with strategic objectives.

NOTABLE PROJECTS

- Created **Web Personalization and Recommendation System** using Python and NLP and successfully increased user engagement.
- Developed a **GenAI Workflow Assistant prototype** by integrating Slack, Jira, and ServiceNow with large language models (LLMs) to enable intelligent ticket triage and workflow automation.
- Built secure **Message Encode/Decode application** with Python and Tkinter for intuitive user interaction.

EDUCATION & CERTIFICATIONS

M.S. in Computer and Information Science

Cleveland State University, 2021

B.E. in Computer Science Engineering

KLE Dr. M.S. Sheshgiri College of Engineering & Technology, 2018

KEY CERTIFICATIONS

AWS Certified Solutions Architect – Associate

AWS Certified AI Practitioner