Ashwin Sridharan

Site Reliability Engineer

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PROFESSIONAL SUMMARY

Energetic and impact-driven **Site Reliability Engineer** with 2.5+ years of experience designing and operating **resilient, multi-cloud infrastructure** (GCP, AWS, Azure). Skilled in **Kubernetes operations, automation, observability, and platform security**, with a strong grounding in **Linux internals and distributed systems**. Adept at building **scalable DevOps pipelines** and internal tools that improve developer efficiency and system reliability.

Actively expanding expertise in **MLOps and AI-driven automation**, including **feature stores, model deployment, and ML-powered observability**, with the goal of building **self-healing, adaptive platforms** that bridge the gap between traditional SRE and intelligent infrastructure.

EMPLOYMENT HISTORY

Site Reliability Engineer- Devops 05/2023 – Present | Pune

Johnson Controls

Platform & Reliability Engineering

- Engineered and operated **resilient Kubernetes clusters** across GCP, Azure, AWS, and hybrid setups, sustaining **99.9%+ availability** for production workloads.
- Onboarded **25+ mission-critical workloads** using performance benchmarking, chaos testing, and load simulation — validating readiness under **10k+ concurrent sessions**.
- Designed automated **release gates, rollback strategies, and health checks**, enabling **zero-downtime deployments** across multiple product teams.

Linux Internals & Deep Systems Debugging

- Resolved **50+ high-severity production incidents** (memory leaks, FD exhaustion, OOM kills, zombie threads) using tools like **valgrind, /proc, smem**, cutting **MTTR by 40%**.
- Led **cross-functional war rooms** to drive root-cause analysis instead of symptom-fixing, preventing **recurrence of >70% of incidents**.
- Mentored developers on **Linux performance tuning and memory-safe coding practices**, improving **production stability scores** across teams.

CI/CD & DevOps Automation

- Modernized **20+ legacy Jenkins pipelines** into declarative, modular Jenkinsfiles with GitHub, Slack, and Vault integration — reducing failures by **35%**.
- Built a **Kubernetes-native CI/CD platform** using Tekton, Buildpacks, and ArgoCD, enabling **50+ developers** to ship code with consistent, repeatable workflows.
- Automated **zero-downtime deployments** and **DB migrations (Flyway)**, cutting release times from **hours to <15 minutes**.
- Optimized CI workflows by integrating **CodeQL security scans**, improving **pipeline reproducibility** and reducing costs by **20%**.

Security, Observability & Operational Maturity

- Embedded **container security scanning (Trivy, Finitestate)** with SBOM enforcement, ensuring **100% compliance** across production images.
- Built a **full-stack observability platform** (Prometheus, Grafana, Loki, Alertmanager, Jaeger), improving visibility and reducing **incident detection time by 45%**.
- Reduced **alert fatigue by 60%** through SLO tuning, blackbox probing, and refined alert thresholds — ensuring teams only respond to actionable signals.

Cloud Infrastructure & Automation

- Managed **multi-cloud infrastructure (AWS, Azure, GCP)** via **Terraform and Ansible**, ensuring **disaster recovery readiness with <5 min RTO**.
- Implemented **GitOps-based IaC workflows** for drift detection, policy enforcement, and auditability, raising **compliance scores by 30%**.
- Reduced cloud spend by **25–30%** through proactive resource cleanup, automated shutdown policies, and **rightsizing 200+ workloads**.

Internal Tooling & AI Integration

- Developed a **Flask-based Developer Portal** for CI/CD visibility and self-service integrations with GitHub and Grafana — adopted by **100+ engineers**.

- Pioneered **AI-assisted SRE workflows**, including a **production-ready RAG chatbot (Azure OpenAI + vector search)** that accelerated engineering knowledge access and reduced **manual query resolution by 50%**.
- Explored **ML-SRE synergy** by building prototypes for intelligent alerting and automated remediation.

Software Engineering Intern 01/2023 – 05/2023 | Chennai
Virtusa
- **Developed scalable backend systems** using **Spring Boot** and **Java**, improving performance and modularity.
- **Integrated AJAX and XML** to enhance **data flow** and user responsiveness.
- **Implemented JDBC-based data access layers**, ensuring **reliable and optimized DB connectivity**.

EDUCATION

Bachelor of Science 04/2025 – Present | Chennai
Indian Institute of Technology, Madras
***GPA**: 8.01/10*

Diploma in Data Science and Programming 02/2021 – 10/2024 | Chennai
Indian Institute of Technology Madras
GPA: 8.01/10

Bachelor of Technology, Information Technology 01/2019 – 05/2023 | Chennai, India
Anna University
GPA: 9.28/10
Achievements: **Department Topper · University 9th Rank**

SKILLS

- Cloud Platforms: AWS, GCP, Azure — designing and managing multi-cloud, production-grade infrastructure Linux & Systems: Linux internals, performance debugging, system calls — resolving low-level system issues and optimizing performance Containerization & Orchestration: Docker, Kubernetes, Helm — operating scalable, self-healing clusters in production Infrastructure as Code: Terraform, Ansible — implementing GitOps workflows, drift detection, and audit-ready IaC DevOps & CI/CD: Jenkins, ArgoCD, Tekton, GitHub Actions, Flyway — enabling zero-downtime deployments and secure automation Observability & Monitoring: Prometheus, Grafana, Loki, Alertmanager — building end-to-end observability and actionable alerting Security: Network security, SBOMs, Trivy, Finitestate — embedding security scanning and policy enforcement in CI/CD Programming: Python, Go, Java — building internal tools, automation, and platform services AI / ML / Intelligent Systems: LLMs, Agentic AI, RAG, vector embeddings, LangChain, OpenAI APIs, prompt engineering — applying AI to SRE automation, MLOps, and knowledge workflows Messaging & Streaming: Redpanda, Confluent — designing pub/sub pipelines for scalable, event-driven architectures
- Linux & Systems: Linux internals, performance debugging, system calls — resolving low-level system issues and optimizing performance
- Containerization & Orchestration: Docker, Kubernetes, Helm — operating scalable, self-healing clusters in production
- AI / ML / Intelligent Systems: LLMs, Agentic AI, RAG, vector embeddings, LangChain, OpenAI APIs, prompt engineering — applying AI to SRE automation, MLOps, and knowledge workflows
- Infrastructure as Code: Terraform, Ansible — implementing GitOps workflows, drift detection, and audit-ready IaC
- Observability & Monitoring: Prometheus, Grafana, Loki, Alertmanager — building end-to-end observability and actionable alerting
- DevOps & CI/CD: Jenkins, ArgoCD, Tekton, GitHub Actions, Flyway — enabling zero-downtime deployments and secure automation
- Programming: Python, Go, Java — building internal tools, automation, and platform services
- Security: Network security, SBOMs, Trivy, Finitestate — embedding security scanning and policy enforcement in CI/CD
- Messaging & Streaming: Redpanda, Confluent — designing pub/sub pipelines for scalable, event-driven architectures

CERTIFICATIONS

- Cloud Associate Engineer, Google
- JavaScript(Basic),HackerRank
- Python(Basic), HackerRank
- SQL(Intermediate), HackerRank
- Professional Cloud Architect,Google
- Problem Solving(Basic), HackerRank
- SQL(Basic), HackerRank
- Java(Basic), HackerRank