Ashwin Sridharan

Site Reliability Engineer

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PROFESSIONAL SUMMARY

Energetic and **impact-driven Site Reliability Engineer** with over **2.5 years of experience** architecting and maintaining **high-availability systems** across **multi-cloud environments (GCP, Azure, AWS)**. Proven expertise in **Kubernetes operations**, **performance debugging**, **cost optimization**, and **infrastructure automation**. Adept at building **scalable DevOps pipelines** and **production-grade tools** that enhance **engineering efficiency**. Strong foundation in **Linux internals**, **observability**, and **platform security**. Passionate about the convergence of **SRE and machine learning** — exploring **agentic AI**, **intelligent automation**, and **ML-powered observability** to build **self-healing**, **adaptive systems** that go beyond traditional infrastructure boundaries.

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, ensuring **self-healing** and **high-availability** production environments.
- **Onboarded 25+ mission-critical workloads** using **performance benchmarking**, **chaos testing**, and **load simulation** strategies.
- **Designed and automated** release gates, health checks, and rollback strategies to enable **safe, repeatable deployments**.

Linux Internals & Deep Systems Debugging
- **Resolved complex production issues** involving **memory leaks** (valgrind, /proc, smem), **FD exhaustion**, **CPU contention**, **OOM kills**, and **zombie threads**.
- **Led war rooms** with developers to **deep-dive into root causes**, not symptoms — accelerating **mean time to resolution (MTTR)**.
- **Mentored engineering teams** on **Linux performance tuning**, system calls, and writing **memory-safe applications**.

CI/CD & DevOps Automation
- **Led Jenkins modernization efforts**, migrating legacy pipelines to **declarative, modular Jenkinsfiles** and integrating with GitHub, Slack, and vault systems for secure automation.
- **Built a Kubernetes-native CI/CD platform** using **Tekton**, **Buildpacks**, and **ArgoCD** for multiple product teams.
- **Automated zero-downtime deployments**, **DB migrations** (Flyway), and validation workflows across environments.
- **Optimized CI workflows**, reducing costs (CodeQL security scans) and improving pipeline **efficiency and reproducibility**.

Security, Observability & Operational Maturity
- **Integrated container security scanners** (**Trivy**, **Finitestate**) with SBOM and **image policy enforcement** in CI/CD.
- **Implemented a full observability stack: Prometheus, Grafana, Loki, Alertmanager**, and **distributed tracing**.
- **Reduced alert fatigue by 60%** by refining **SLOs**, **blackbox probes**, and alert thresholds.

Cloud Infrastructure & Automation
- **Provisioned and managed infrastructure** across **AWS, Azure**, and **GCP** using **Terraform** and **Ansible**, ensuring **DR-readiness** and **standardization**.
- **Implemented GitOps and IaC workflows** for **drift detection**, **policy enforcement**, and **auditability**.
- **Reduced cloud costs by 25–30%** by **rightsizing resources**, applying **auto-shutdown policies**, and implementing **tag-based cost governance**.

Internal Tooling & AI Integration
- **Developed a Flask-based internal developer portal** for CI/CD visibility and self-service integrations with **GitHub** and **Grafana**.
- **Explored ML-SRE synergy** by creating internal tools and AI workflows, including chatbot agents to improve **engineering knowledge access and automation**.

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

Diploma in Data Science and Programming   02/2021 – 10/2024 | Chennai
Indian Institute of Technology Madras 🔗
GPA: 9.0/10
Key Projects:-
- **Household Manager (Flask + SQLite):** Built a web app to manage chores and budgets with a lightweight local DB
- **Vue.js Quiz App (Vue + Flask):** Designed a modular quiz app with auth, REST APIs, and CRUD operations.
- **Retail Sales Analysis (Python, Pandas):** Audited real shop sales, boosted revenue via data-driven recommendations.
- **Restaurant Visit Prediction (Kaggle):** Modeled customer visits using ML classification/regression techniques.

Bachelor of Technology, Information Technology   01/2019 – 05/2023 | Chennai, India
Anna University 🔗
GPA: 9.28/10
Achievements: Department Topper · University 9th Rank
Capstone Project:
- **Secure Telehealth Platform (Django + React + AWS):** Enabled remote consultations with custom image encryption and secure cloud storage.

SKILLS

- Cloud Platforms : AWS, GCP, Azure

- Linux & Systems: Linux Internals, Performance Debugging, System Calls

- Containerization & Orchestration: Docker, Kubernetes, Helm

- AI / ML / Deep Learning: LLMs, Agentic AI, RAG (Retrieval-Augmented Generation), Vector Embeddings, OpenAI APIs, LangChain, Prompt Engineering

- Infrastructure as Code: Terraform, Ansible

- Observability & Monitoring: Prometheus, Grafana, Loki, Alertmanager

- DevOps & CI/CD: Jenkins, ArgoCD, Tekton, GitHub Actions, Flyway

- Programming Languages: Python, Go,Java

- Security: Network Security, SBOMs, Trivy, Finitestate

- PubSub: Redpanda, Confluent

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 🔗