

AKHILESH KOMMIREDDY

Hyderabad, Telangana • akhileshkommireddy2412@gmail.com

WORK EXPERIENCE

SITE RELIABILITY ENGINEER (SRE 2 → SRE 3)

11/2020 – PRESENT

RudderStack

Remote

- Design, implement, and maintain a Kubernetes operator that automates workload provisioning for customer data platform and underlying infrastructure
- Build and maintain a customer onboarding service that generates CRDs consumed by the Kubernetes operator
- Architected end-to-end observability stack using *Prometheus, Mimir, Loki, Pyroscope and Grafana*. Delivering visualization and alerting systems for full visibility into the customer data platform
- Planned and executed datastore upgrades and system migrations to optimize cost and improve reliability; automated cross-tier customer migrations to eliminate manual toil
- Evaluated, deployed, and tuned an ingress controller capable of sustaining traffic spikes of **120k requests/sec**; established signal-to-noise-optimized dashboards and alerting policies
- Drove ingestion scalability initiatives through systematic evaluation and prototyping of distributed queue architectures
- Developed reusable CI/CD components and infrastructure-as-code modules to accelerate engineering delivery
- Spearheaded incident response and on-call operations; established escalation chain standards and customer success communication protocols, maintaining a **99.99% SLO** over the past year
- Built an end-to-end automated secret rotation platform rotating organization-wide API and infrastructure secrets with zero-downtime rolling restarts on update. Removed GitHub PAT dependencies org-wide by migrating to GitHub Apps

MEMBER OF TECHNICAL STAFF – 1

07/2018 – 11/2020

VMware

Pune, India

- Designed and built an automated API documentation generator for NSX-T from OpenAPI YAML specifications, improving customer developer experience
- Authored NSX-T Ansible modules that enabled customers to provision and manage their network infrastructure declaratively as code
- Investigated and resolved defects in the NSX-T installation and upgrade workflow

EDUCATION

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

2015 – 2018

M.Tech, Computer Science & Engineering

- **Thesis:** Designed and implemented an automated load testing framework for virtualized applications, leveraging hypervisor-level resource profiling to characterize multi-tier application performance

PUBLICATIONS

AutoPerf: Automated Load Testing and Resource Usage Profiling of Multi-Tier Internet Applications

ICPE 2017 | L'Aquila, Italy

PROFESSIONAL SKILLS

- **Languages:** Go (5+ years), Python (10+ years); proficient in JavaScript, HTML, and CSS
- **Kubernetes:** Deep operational expertise including custom operators, CRDs, workload lifecycle management, and large-scale operations across 12 clusters
- **Cloud-Native:** *AWS; Prometheus, Grafana, Loki* observability/alerting stacks; ingress controllers and traffic management(*Traefik and Nginx*); secret management and rotation(*Vault*); Infrastructure provisioning (*Terraform*), resource templating (*Helm*), and CI/CD pipeline design(*Github Actions and ArgoCD*)
- **Reliability Engineering:** On-call operations, escalation design, post-mortem facilitation, investigating commanding incidents and participating in cross-functional incident communication
- **Leadership:** Mentoring junior engineers, establishing engineering standards, and maintaining comprehensive onboarding documentation