

#### INERASTRUCTURE LEAD · SECURITY ANALYST

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"A tinkerer with a curious mind"

### **Summary** <sub>-</sub>

Results-driven Infrastructure Engineer with 6+ years of experience architecting and implementing scalable cloud solutions. Demonstrated expertise in optimizing infrastructure costs while maintaining 99.99% SLA for systems supporting 4M+ daily active users. Proficient in Kubernetes, AWS, and modern DevOps practices with a strong focus on automation, security, and performance optimization. Skilled troubleshooter with deep knowledge of networking, databases, storage, and serverless technologies. Adept at collaborating with cross-functional teams to deliver robust infrastructure solutions that align with business objectives and budgetary constraints.

## Experience \_\_\_\_

TrueFoundry India

### SENIOR SITE RELIABILITY ENGINEER (SRE)

Sept. 2024 - Present

Driving multi-cloud adoption strategy by building flexible onboarding solutions that work across AWS, GCP, Azure and on-prem environments. Tackling complex infrastructure challenges while ensuring clients can deploy ML workloads anywhere with consistent security and performance.

- Built a modular **Terraform** framework that slashed client onboarding time by 70%, enabling seamless deployment across **AWS**, **Azure**, **GCP**, and on-premises environments with minimal configuration changes.
- Created Marketplace listings for major cloud providers, resulting in a 40% increase in self-service customer acquisition and significantly reducing sales engineering overhead.

#### **Primetrace (Kutumb Crafto)**

India

### Infrastructure Lead (Founding Engineer)

Feb. 2021 - Sept. 2024

Architected and implemented scalable infrastructure on **AWS** utilizing self-hosted Kubernetes that successfully supported **4M DAU** with peak loads of **1M RPM**. Implemented comprehensive monitoring using **RED** and **USE methodologies** with **Prometheus**, **Grafana**, **Elastic-APM**, **Pyroscope**, **Loki**, and **Robusta** for proactive issue detection and resolution.

- Reduced annual cloud expenditure by \$200K through strategic implementation of self-hosted services, efficient pod/node binpacking, spot instance utilization, and optimization of network flow logs and metrics volume.
- Designed and maintained highly available multi-broker **Apache Kafka** clusters and multi-node **ELK Stack** on spot instances, ensuring data resilience while minimizing costs.
- Enhanced cluster security posture by implementing comprehensive network policies and role-based access control (RBAC) configurations, significantly reducing potential attack vectors.
- Accelerated deployment pipeline efficiency by reducing deployment times to under one minute through implementation of self-hosted **GitHub-Runners** on spot instances integrated with **ArgoCD** and **Devtron**.
- Expanded global reach by implementing IPv6 support across the infrastructure stack and integrating AWS Global Accelerator to reduce latency for international markets.
- Deployed and maintained **OpenVPN** within the **Kubernetes cluster**, streamlining secure connectivity between on-cluster services and development environments.
- Achieved 99.99% uptime while running stateless workloads on 95% spot instances through implementation of intelligent time-based scaling and node hibernation strategies during low-traffic periods.
- Led the integration of a comprehensive observability stack encompassing centralized monitoring,

Application Performance Monitoring (APM), distributed tracing, logging, profiling, and alerting systems.

smallcase India

DEVOPS ENGINEER Feb. 2019 - Sep. 2020

Managed critical infrastructure components including **OpenVPN**, **Heartbeat**, **Elastalert**, and **Grafana** while integrating essential developer tools such as **Wiki.js**, **Sentry**, and **JFrog Artifactory**. Developed and maintained **Ansible** automation for infrastructure deployments, log rotation, backup procedures, and monitoring agents. Optimized CI/CD pipelines in **Jenkins** and **AWS CodeDeploy** to enhance deployment reliability and efficiency.

- Spearheaded infrastructure cost optimization initiatives resulting in a 90% reduction in operational expenses while maintaining service quality and performance.
- Implemented **HAProxy** load balancing solution to enhance network performance and reliability, resulting in measurable improvements in application response times.
- Enhanced developer productivity by integrating and configuring open-source observability tools including Elastic-APM, Kafka-manager, and Kafka-topics-ui.
- Designed and deployed fault-tolerant data processing infrastructure utilizing multi-broker **Apache Kafka** clusters and distributed **ELK Stack** on cost-effective spot instances.

**Udacity** Remote

TECHNICAL MENTOR Apr. 2018 - Present

Provide expert guidance and project reviews for students in Android and Python Development courses, evaluating technical implementations and offering constructive feedback to enhance learning outcomes.

**Utopian.io** Remote

**OPEN SOURCE CONTRIBUTOR** 

Jun. 2018 - Present

Perform comprehensive bug reviews and quality assurance for multiple open-source projects, contributing to improved software reliability and security while collaborating with global development teams.

### Skills

**Cloud Platforms** AWS, Azure, GCP, Terraform, CloudFormation, Spot Instances **Containerization** Kubernetes, Docker, Helm, Kustomize, ArgoCD, GitOps

InfrastructureInfrastructure as Code (IaC), Linux, IPv6, Ansible, Jenkins, GitHub ActionsNetworkingIstio, Traefik, HAProxy, Load Balancing, RBAC, Network Policies, OpenVPNObservabilityPrometheus, Grafana, Loki, ELK Stack, Elastic-APM, Tempo, Distributed TracingData SystemsApache Kafka, Redpanda, RabbitMQ, PostgreSQL, MySQL, Redis, Airbyte

**Programming** Python, Bash, Go, Git, CI/CD Pipelines, dbt, Airflow, Spark

# **Education**

Chitkara University Punjab, India

**B.E. IN COMPUTER SCIENCE AND ENGINEERING** 

2016 - 2020

Graduated with **9.29 CGPA** (Distinction) with specialization in Cyber-Security Coursework: Distributed Systems, Network Security, Cloud Computing, Database Management, Operating Systems

## Honors & Awards \_\_\_\_\_

### **HACKATHONS**

2024	Winner, 2x AWS-Gameday: Security, Resilience	Bangalore
2023	Runner up, AWS-Gameday: Microservices	Bangalore
2018	Winner, MSHacks 2.0 - Microsoft Hackathon	LPU, Jalandhar
2018	Runners Up, Octahacks	Chandigarh
2018	Winner, Code Breakers	CSI Chandigarh
2018	Runners Up, SAP Next-Gen Hackathon	Chandigarh
2017	Runners Up, Codex C++	CSI Punjab

## **Certifications**

### **Kubernetes Certifications**

LINUX FOUNDATION 2021 - 2025

- CKS: Certified Kubernetes Security Specialist (LF-fty09fzmce) Valid until June 2025
- CKA: Certified Kubernetes Administrator (LF-bl5pcg30qm) Valid until June 2025
- CKA: Certified Kubernetes Administrator (LF-4j07bu8tsj) Issued 2021

### **AWS Certified Solutions Architect - Associate**

AMAZON WEB SERVICES (AWS)

- Credential ID: K71S1HB13NBEQT5N
- Expertise in designing distributed systems on AWS, implementing cost-effective and scalable solutions

### **Professional Development**

UDACITY 2018

Aug. 2019 - Aug. 2024

- Android Development Nanodegree Mobile application architecture and development
- Data Structures Nanodegree Advanced algorithms and computational efficiency
- Python Foundation Nanodegree Backend development and automation
- Programming Fundamentals Nanodegree Software engineering principles