



LAXMI NARASIMHA REDDY GUMREDDY

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SUMMARY

Senior Systems Engineer with 8+ years of experience architecting, automating, and operating highly available infrastructure across AWS, GCP, and hybrid cloud environments. Strong background in Kubernetes platform engineering (EKS), infrastructure as code (Terraform/Ansible), and CI/CD automation (Jenkins/GitLab CI) enabling secure, zero-downtime deployments at scale. Proven in reliability engineering, observability, and incident response using Prometheus/Grafana/ELK, with recent focus on platform security and service-to-service trust (image signing, admission control, and Istio mTLS). Experienced in kernel-level observability and networking using eBPF-based systems (Cilium/Hubble), and builder of **EBGuard**, a Rust-based CLI for eBPF security and behavioral analysis. Passionate about performance optimization and intelligent automation, including ML/LLM-powered infrastructure workflows (LangChain) to reduce operational toil.

TECHNICAL SKILLS

Cloud: AWS (EKS, EC2, IAM, VPC, CloudWatch), GCP, IBM Cloud

Containers/Orchestration: Kubernetes, Docker, Helm, ArgoCD (GitOps)

IaC & Automation: Terraform, Ansible, AWS CDK, Rundeck

CI/CD: Jenkins, GitLab CI, Spinnaker

Observability: Prometheus, Grafana, ELK (Kibana), Splunk, Hubble

Security/DevSecOps: Vault, IAM, Istio (mTLS), image signing/scanning, admission controllers, network policies

eBPF/Networking: eBPF tracing, Cilium, Hubble

Languages: Python, Go, Rust, Bash, HCL

Databases: PostgreSQL, RDS, DynamoDB, Firestore, Vector DBs

SELECTED PROJECTS

EBGuard — eBPF Security & Semantic Analysis CLI (Rust) | Open Source (Org-Owned)
GitHub Org: <https://github.com/ebpf-guardian>

- Built Rust-based CLI for static semantic + behavioral analysis of compiled eBPF object files (.o).

- Implemented CFG construction and traversal to analyze execution paths and detect unsafe patterns.
 - Added map usage analysis to validate access patterns and detect risky usage across programs.
 - Implemented verifier scalability heuristics (cyclomatic complexity, branch/path estimation) to estimate verifier risk.
 - Designed rule engine + human/JSON outputs for CI integration and automated policy enforcement.
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PROFESSIONAL EXPERIENCE

Qualtrics LLC — Sr System Engineer | Oct 2021 - Present

- Owned production monitoring, alerting, and incident response using **Prometheus, Grafana, and ELK**, maintaining high availability across multi-environment deployments.
- Implemented advanced Kubernetes observability and service traceability using **eBPF-based tooling (Cilium/Hubble)** to improve debugging speed and network visibility.
- Provided 24/7 on-call support for platform infrastructure; performed deep **root-cause analysis** across distributed systems to resolve reliability and performance issues.
- Managed **multi-region AWS EKS clusters**, ensuring Kubernetes deployments remained resilient, compliant with SLAs, and protected through network policies and governance controls.
- Automated infrastructure provisioning and configuration with **Terraform, Ansible, Python, and AWS CDK**, reducing manual operations and improving reproducibility.
- Led DevSecOps initiatives including **container image signing/scanning** and **Kubernetes admission controls** to block vulnerable images from reaching production.
- Established GitOps workflows using **ArgoCD** to enable version-controlled deployments with auditability and automated rollouts.
- Integrated **Istio service mesh** for secure service-to-service communication, enabling **mTLS**, traffic policies, and telemetry with minimal application changes.
- Supported internal tooling and containerized microservices integrating **LLM/ML workflows (LangChain)** for intelligent automation and reduced operational toil.

Clarabridge — Cloud Engineer | Feb 2021 – Sep 2021

- Provisioned and operated production infrastructure across **AWS/GCP/IBM Cloud**, troubleshooting critical application outages and reliability risks.
- Automated patching, provisioning, and upgrades using **Terraform, CloudFormation, Jenkins, and Ansible**.
- Managed AWS Kubernetes deployments ensuring availability across regions and compliance with SLAs.
- Built serverless automation using **AWS Lambda** for operational tasks and deployment acceleration.
- Collaborated with security teams on threat detection, networking issues, and cloud hardening.

Neustar — Senior Systems Engineer | Mar 2018 – Feb 2021

- Supported large-scale, customer-facing mission-critical infrastructure across public cloud and global data centers.
- Implemented Terraform + Ansible automation for repeatable infrastructure provisioning and configuration management.
- Designed Jenkins automation pipelines integrating Terraform/CloudFormation to enable one-touch deployments and reduce release risk.
- Migrated Chef recipes to Ansible roles to improve maintainability and strengthen secrets management.
- Developed Python/Bash automation to reduce manual work and improve operational reliability.

Epic Systems — DevOps Engineer Jr | Aug 2017 – Feb 2018

- Design and implement appropriate environments for those applications, engineer suitable release management procedures and provide production support.
- Worked in designing the Ansible playbooks which is the entry point for Ansible provisioning, where the automation is defined through tasks using YAML format. Run Ansible Scripts to provision Dev servers.
- Customized and Designed Terraform-Jenkins integration to run pipeline job automatically.
- Leveraged Terraform to automate in AWS infrastructure like EC2, IAM, VPC, EBS, Cloud Watch, Cloud Trail, Cloud Formation, Auto Scaling, IAM, S3 using JSON / HCL Scripts and general knowledge in Kubernetes.

GNR Systems Inc. — Software Engineer | April 2017 – August 2017

- Automated build pipeline, continuous integration, and continuous deployment with test automation frameworks tools such as Git, Jenkins.
- Worked in liaison with Architecture, Development, Test, Security and IT Services teams
- Configured RedHat Enterprise Linux Server as a Data Storage Server.
- Worked on creating an automated system to service the patch installations and Automated Deployments on Production and Customer Environments via Ansible.
- Configured various services, devices as well as applications of UNIX servers and worked with application team to customize the environment. Worked with Apache and developed several UNIX scripts to automate web tasks.