SAICHARAN VIJAYAGIRI
508-596-4110 | saicharanv0@gmail.com | https://www.linkedin.com/in/charan-v-b51396119

## PROFESSIONAL SUMMARY

Experienced Cloud DevOps & Site Reliability Engineer with 10+ years of expertise in architecting and automating secure, scalable, and cost-efficient infrastructure across multi-cloud environments (AWS, Azure, GCP) in hybrid Linux/Windows ecosystems. Proven ability to support high-growth SaaS platforms, regulated healthcare & insurance systems, and fast-paced startups with strong focus on compliance and reliability.

Specialized in resilient CI/CD pipelines, Kubernetes-based container orchestration, and infrastructure-as-code (Terraform, Ansible) to drive deployment velocity and consistency. Adept at implementing end-to-end observability solutions (Prometheus, Datadog, ELK) to ensure high availability, performance, and rapid incident resolution. Recognized for enabling business continuity through DR/HA strategies, cloud security best practices, and cost optimization.

- **Kubernetes:** AKS, EKS, GKE, OpenShift, Rancher.
- **Configuration Management:** Ansible,Puppet, Terraform/ OpenTofu.
- **Containerization:** Docker, PODMAN.
- **Amazon Web Services:** EC2, IAM, S3, VPC, ECS, EKS, ELB, Lambda, Bedrock CloudWatch, EBS, ECR, ElastiCache, Sagemaker, DynamoDB, API Gateway, SQS, SNS.
- **Azure:** VMs, ACR, AKS, ARM, Entra ID, Azure DevOps, COSMOS DB, ADF, Key Vault, Azure AI services.
  GCP: GKE, cloudrun, CloudSql, cloud Spanner, firestore, Dataflow, Vertex AI, Dataproc,
  **Message Queues:** Apache Kafka, RabbitMQ
- **Programming Languages:** Python, SQL, Groovy, GO.
- **Scripting:** Powershell, Bash, JSON, HCL,JS
- **Monitoring & Observability:** ELK, Dynatrace, Open Telemetry, Grafana, Splunk, Prometheus, New-Relic, DataDog.
- **CICD:** Jenkins, Artifactory, SonarQube, Xray, Argo CD, GitHub actions, GitOps, JIRA, Confluence.
- **System Administration:** RHEL, Ubuntu, CentOS, Kali lInux, Windows
- **Databases:** Cassandra, PostgreSQL, NoSql, MySQL, Influx DB, Mongo DB, DynamoDB

## EDUCATION

**Texas A&M University** — **Kingsville, TX.**
***Master's in Computer Sciences*** — ***Jan 2014 - Aug 2015***

**SRM University** — **Chennai, IND.**
***Bachelor of Technology, Electronics*** — ***Mar 2009 - Jun 2013***

## WORK EXPERIENCE

***UnitedHealthcare*** — ***Sr Cloud Engineer***
***Aug 2023 - present***

- Architected and operated **multi-region, fault-tolerant Kubernetes clusters (EKS/AKS/GKE)** with disaster recovery strategies ensuring RTO less than 5 minutes and 99.99% availability for critical workloads.
- Implemented **geo-redundant deployments** with global load balancers (Azure Front Door, AWS Global Accelerator) to support zero-downtime failover.
- Optimized **auto-scaling policies** and pod scheduling to handle 3x traffic spikes while reducing over-provisioning costs by 25%.
- Implemented **observability pipelines (OpenTelemetry, ELK, Datadog)** enabling root-cause analysis of complex distributed system failures within minutes, increasing advertiser-like trust and system reliability.
- Orchestrated **Kubernetes workloads (AKS, GKE & EKS)**, implementing **Canary, Blue/Green, and Zero Downtime** deployments with Istio, ArgoCD, and Spinnaker.
- **Designed and implemented multi-region disaster recovery strategies** across AWS, Azure, and GCP, leveraging cross-region replication, failover routing, and automated recovery runbooks to meet RTO/RPO objectives.
- Reduced **deployment latency by 60%** by optimizing Docker workflows and leveraging **multi-stage builds**, cutting disk usage by **90%**.
- Integrated **DevSecOps pipelines** with **Snyk, SonarQube, JFrog Xray, and DAST/SAST/SCA**, ensuring end-toend security across builds and artifacts.
- Designed and enforced **Zero Trust security models** with fine-grained IAM policies, role-based access controls (RBAC/ABAC), and just-in-time credentialing across multi-cloud platforms.
- Implemented **federated identity and SSO integrations** (Azure AD, Entra ID Okta, AWS IAM Identity Center) with MFA, SCIM provisioning, and audit compliance (SOC 2, HIPAA, NIST).
- Architected **high-availability, fault-tolerant systems** using Kubernetes, microservices, and distributed databases across AWS, Azure, and GCP.
- Automated provisioning with **Terraform, Ansible, Helm**, and maintained configuration drift monitoring using GitOps.
- Hands-on experience with **relational databases (PostgreSQL, SQL Server, MySQL)** and **NoSQL systems (MongoDB, DynamoDB, Redis, Cassandra, Elasticsearch)**.
- Configured **database high availability (HA) clusters**, replication groups, and failover mechanisms across SQL and NoSQL environments.
- Tuned **connection pooling, load balancing, and read replicas** for applications handling thousands of concurrent transactions.
- Implemented **observability stacks** (Prometheus, Grafana, Datadog, ELK) with custom dashboards for performance and security telemetry.
- Secured Kubernetes workloads with **RBAC, HashiCorp Vault, automated TLS certs**, and enforced JWT authentication, improving login speeds by **70%**.
- Developed **Python Flask-based automation tools** to streamline Atlassian admin workflows, enhancing user support efficiency.
- Conducted **POCs for Qualys, Apache Kafka, OpenTelemetry**, Blackduck improving security, observability, and tracing across distributed systems.
- Designed and scaled Kafka-based streaming pipelines supporting low-latency data delivery for the data streaming pipelines.
- Configured **OpenShift Routes, Ingress Controllers, and Service Mesh (Istio/OSSM)** for secure service-to-service communication.
- Built **centralized logging & monitoring with ELK (Fluent Bit, Kibana, Elasticsearch)** for faster debugging, reducing MTTR by **200%**.
- Deployed and managed **containerized applications** on Red Hat OpenShift, leveraging Operators, Projects, and Namespaces for multi-tenant workloads.
- Automated cluster provisioning, scaling, and lifecycle management using **Infrastructure as Code (Terraform, Ansible, Helm)**.

- **Led and mentored** cross-functional SRE and DevSecOps teams, implementing **SRE principles (SLIs, SLOs, error budgets)** and **reducing MTTR by 40%** through automation and proactive monitoring.

***Insightfinder AI*** *Raleigh, NC*
***Lead SRE/DevOps Engineer*** ***Aug 2022 – Aug 2023***

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- Led the end-to-end deployment of the **InsightFinder AI** platform across Kubernetes and cloud environments (AWS/Azure), improving scalability, reliability, and system resilience.
- Architected **Kafka-based event streaming pipelines** handling millions of messages/sec, applying patterns parallel to **real-time bidding (RTB) and ad event ingestion**.
- Deployed and optimized **GPU-backed Kubernetes clusters** for ML workloads, ensuring scalable low-latency inference pipelines.
- Drove POCs for **Hadoop/Hive/Kafka data pipelines**, aligning with **large-scale analytics use cases** similar to advertising data and metrics platforms.
- Provisioned and managed **GPU-enabled** EC2 instances (P3, G4, G5) on AWS for deep learning workloads, optimizing performance with **NVIDIA drivers,** CUDA, and cuDNN configurations.
- Deployed and scaled **GPU workloads** on Kubernetes using **NVIDIA device plugin** and node affinity rules to ensure efficient resource scheduling and isolation.
- Automated **GPU infrastructure** setup using **Terraform and AWS CDK**, enabling reproducible environments for ML model training and inference pipelines.
- Provisioned and administered **GPU-accelerated clusters** (NVIDIA, EKS, AKS) optimized for ML training and inference workloads.
- Designed **secure MLOps pipelines** with data lineage tracking, model versioning, and encryption of datasets in transit and at rest.
- Applied **governance frameworks** (GDPR, HIPAA, internal AI usage policies) for training datasets, ensuring compliant access and auditability.
- Designed auto-scaling policies and load-simulation frameworks to manage unpredictable spikes in user demand during production events.
- Implemented centralized observability with **Prometheus, ELK, and Grafana,** enhancing proactive monitoring, security compliance (**SOC 2, ISO 27001),** and reducing incident resolution time by 50%.
- Owned and optimized cloud infrastructure across **AWS/Azure**, using Python (boto3) and Go to automate resource provisioning, IAM, and security hardening aligned with CIS benchmarks and NIST frameworks.
- Spearheaded **incident response** strategies, building automated recovery playbooks, ensuring **high availability,** and reducing downtime by 40%, while maintaining **SOC 2 compliance** for operational resilience.
- Drove POCs and technical leadership on **Kafka, Hadoop, Hive,** evaluating new technologies and integrating them into highly available, SOC 2-compliant, scalable architectures.

***Onetrust LLC*** *Atlanta, GA*
*Lead* ***SRE*** ***Aug 2021 – Aug 2022***

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- Designed and implemented a highly available, auto-scaling **Microservices architecture** on AWS using Kubernetes (EKS), Docker, and **CloudFormation/CDK,** ensuring seamless deployments and improved **fault tolerance** across production workloads.
- Designed **highly available microservices architecture** with Kubernetes (EKS) + GitOps (ArgoCD), ensuring reliable rollouts and **rapid rollback under failure conditions**, strengthening uptime for critical SaaS features.

- Built **full observability stack (Prometheus, Grafana, ELK, Datadog APM)** that reduced detection-to-resolution times by 40%.
- Partnered with product engineering to **embed reliability/security controls into SDLC**, scaling reliability practices across 20+ teams through reusable IaC modules and SRE best practices.
- Built end-to-end observability pipelines using **Prometheus, Grafana, and ELK Stack** for real-time metrics, logs, and alerting; integrated with **Datadog** for advanced **SLO/SLI** monitoring, reducing MTTR by 40% through proactive incident detection.
- Established **GitOps workflows** with **ArgoCD** for declarative Kubernetes management and automated deployment rollbacks, enhancing deployment reliability and reducing configuration drift across staging and production clusters.
- Developed reusable infrastructure modules in **AWS CDK** to provision and manage core **services (VPC, IAM, EC2, RDS, S3, ALB, CloudWatch)**, enabling consistent and auditable infrastructure deployments via CI/CD pipelines.
- Implemented centralized logging and tracing architecture with **Fluentd + Elasticsearch + Kibana and Datadog APM** to trace microservice interactions, enabling root cause analysis of production issues in under 10 minutes.

**GEICO Insurance** Chevy Chase, MD
**DevOps Engineer / System Administrator.** **Jun 2016 - Aug 2021**

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- Administered Jenkins to manage weekly Build, Test, and Deploy chains in a CI/CD pipeline, leveraging **Dev/Test/Prod** branching models for consistent release cycles.
- Led the migration of legacy data center applications to **Azure and Kubernetes**, implementing secure, highavailability platforms to improve system reliability.
- Designed and implemented CI/CD solutions using **Azure DevOps pipelines**, creating reusable templates to support multiple teams and streamline the development process.
- Automated **Bitbucket and JFrog Artifactory upgrades** using Ansible, reducing manual overhead and increasing **release efficiency by 50%**.
- Configured and maintained Git, **MuleSoft, Artifactory-HA**, **Jfrog-Xray,** and Jenkins, integrating pipelines to optimize build and deployment processes, reducing errors and improving release efficiency.
- Installed and managed **Confluent Kafka on Kubernetes (IKS & AKS)** using Helm charts, enhancing data streaming capabilities across environments.
- Administered and configured monitoring and alerting tools like **Prometheus and Grafana,** deploying customized dashboards to monitor applications running in Kubernetes, boosting operational efficiency.
- Set up **Fluentd** as a daemon set on Kubernetes for centralized log aggregation, significantly improving log management and troubleshooting.
- Managed Azure-based infrastructure, deploying workloads on Azure VMs, configuring **PAAS and IAAS** applications, and enhancing cloud resource scalability and performance.
- Optimized network performance using **TCP/UDP, DNS, load** balancing, and VPNs, improving system resilience and connectivity across environments.
- Coordinated the onboarding of various PAAS and IAAS applications, handling **DNS and IP provisioning** to ensure seamless deployment in Azure.
- Designed and implemented solutions to convert legacy workloads from classic to **ARM-based** Azure environments, improving cloud infrastructure efficiency.