Bharathkumar Dasaraju

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Summary

Senior DevOps & Platform Engineer with 10+ years of experience building, scaling, and automating cloud-native platforms across AWS, GCP, and Azure. Expert in Kubernetes (EKS/GKE), CI/CD, Terraform, microservices, observability, and platform security. Designed and operated large-scale platforms for financial institutions, telcos, airlines, and fintechs. Strong background in SRE, cloud automation, multi-cloud networking, monitoring, and DevSecOps.

Core Strengths: Platform engineering, Kubernetes, Terraform, GitHub Actions, ArgoCD, Helm, distributed systems, SRE practices, GCP architecture, cost optimization, container security, and automation.

Technical Skills

Cloud: AWS, GCP, Azure
Kubernetes: EKS, GKE, OpenShift, Rancher, Istio, Traefik, Tyk APIGW
DevOps: Terraform, Helm, ArgoCD, GitHub Actions, Jenkins, AWX/Ansible
Observability: Prometheus, Grafana, Loki, Thanos, Tempo, Datadog, Elastic Stack, OpenTelemetry
Security: Vault, External Secrets Operator (ESO), EKS Pod Identity/IRSA, CIS Benchmarks, Cloudflare WARP
Programming: Python, Bash, Go (basics)
CI/CD: GitHub Actions, Bitbucket/Jenkins, GitLab CI
Databases & Streaming: PostgreSQL, MySQL, Kafka (Confluent), GCP Pub/Sub
Other: NixOS, SnowCommander, CloudFormation, Pulumi, AWS CDK, Consul, HAProxy
Certs: Certified Kubernetes Administrator (cka.devops4itengineers.com), GCP Professional Cloud Architect, AWS Professional Solutions Architect, Terraform Associate, Azure and AWS AI Cloud Engineer

Work Experience

Singapore - Employment Pass Visa

Senior DevOps (ML/AI) Engineer - Abaxx Commodity Futures Exchange and Clearinghouse | Apr 2024 - Present | Singapore | AWS EKS Platform

- Developing and deploying containerized applications to AWS EKS clusters with production-grade observability, alerting, and secure workload access in place.
- Architected and operated a large-scale Platform-as-a-Service (PaaS) on AWS EKS, hosting trading, clearing, and market-data workloads across multi-environment clusters.
- Designed secure AWS network architecture using AWS Network Firewall as the primary entry point for inbound traffic, providing layer-7 inspection, threat detection, segmentation controls, and centralized policy enforcement.
- Engineered end-to-end Cloudflare configurations including Page Rules, caching tiers, WAF policies, bypass rules, and traffic-routing logic for production and disaster-recovery endpoints.
- Implemented Cloudflare Origin Certificates and Cloudflare Edge Certificates to enforce mTLS, strengthen encryption posture, and simplify certificate lifecycle management across applications.
- Designed and maintained Helm charts for mission-critical applications such as MMT, MDAPI, Clearing System, TradingView, COCO, CLAUS, Keycloak, and others.
- Built reusable Terraform modules for GitHub/AWS infrastructure provisioning, reducing environment setup time by 40% and improving overall infrastructure consistency.
- Led observability migration from Prometheus + Thanos + Tempo to Elastic Stack, with alerting rules managed declaratively in Terraform.
- Implemented cloud-cost optimization automation, cleaning up unused AWS assets and reducing spend by 35%.
- Worked extensively with AWS networking including VPC design, TGW, subnets, routing, ALB/NLB ingress patterns, RDS, SFTP, IAM, and secure multi-account CI/CD pipelines.

Cloud Architecture Consultant - Cloud Kinetics | May 2023 - Apr 2024 | Singapore | Hybrid | AWS & Azure Cloud Solution Architecture

- Designed multi-account AWS landing zone architecture using AWS Control Tower, account vending, guardrails, centralized logging, IAM boundaries, and security baseline controls.
- Worked as Cloud Architecture Consultant for the Abaxx team, designing cloud-native AWS platform patterns aligned with fintech security, availability, and compliance requirements.
- Developed a Python-based Kubernetes init container to pull secrets from AWS Secrets Manager at pod startup and mount them as volumes for application consumption.
- Designed and architected Elastic Cloud for the Abaxx team, including log ingestion, metrics visibility, APM strategy, alerting foundations, and operational dashboards.
- Educated development teams on containerization best practices, Docker image design, Kubernetes deployment patterns, Helm chart structure, and production-readiness standards.
- Designed Flyway-based database versioning patterns for Abaxx applications to support repeatable schema migrations, release traceability, and continuous database delivery.

Senior SRE Engineer - advance.ai | Jun 2022 - Jul 2023 | GCP + GKE Platform

- Designed full GCP infrastructure for Safi Bank using Terraform, including networking, IAM, security, and multiple GKE workloads, including a central GKE cluster for observability.
- Built CI/CD via GitHub Actions and GitOps via ArgoCD.
- Managed Kubernetes workloads using Helm charts and integrated Istio service mesh.
- Implemented platform monitoring using Prometheus, Grafana, Loki, Thanos, and Tempo, lowering MTTD and MTTR significantly.
- Built data platform integrations with Kafka (Confluent) and GCP Pub/Sub.
- Managed cert-manager and ZeroSSL for automated certificate provisioning.

- Set up platform from scratch, enabling rapid onboarding for banking applications.

SRE - NTUC Singapore | Jul 2020 - May 2022 | GCP + GKE Platform

- Designed Shared VPC architecture on GCP for large enterprise customers.
- Containerized internal applications and migrated legacy Docker setups to NixOS + Nix files.
- Built multi-cloud provisioning platform using SnowCommander.
- Designed internal PaaS on Azure, including Azure Monitor (SIEM), MSSQL, and operational dashboards.
- Automated infrastructure using Terraform + Jinja2 templating based on YAML metadata.
- Built a Python + Cloud Run + Cloud Tasks serverless automation system to modify IaC repositories automatically from Jira tickets; auto-created PRs and merged repetitive changes, drastically reducing manual effort.
- Deployed AWX on GKE and wrote multiple Ansible playbooks.
- Built Python-based EC2 maintenance automation including daily encrypted AMI creation and automated EC2/EBS decommissioning workflows.
- Contributed to Golden Pipelines and built custom Docker images for pipelines.
- Designed Kubernetes deployment pipelines and supported microservices teams.
- Integrated Datadog and participated in production incident investigations.

DevOps Engineer - Singapore Airlines | Apr 2019 - Jul 2020 | OpenShift, Docker & Kubernetes

- Led the Container Platform team managing OpenShift 3.6 / 3.11 across AWS and VMware.
- Designed microservices architecture and deployed new OpenShift clusters.
- Managed service onboarding, CI/CD with Bitbucket, Jenkins, and Jira, network policies, RBAC, and multi-cluster security.
- Maintained EFK stack (Elasticsearch, Fluentd, Kibana) for log analytics.
- Implemented CIS Kubernetes Benchmarks and image scanning via AquaSec and OpenSCAP.
- Automated AWS workloads using CloudFormation, Step Functions, Lambda, and Python.
- Managed RHEL7 nodes, capacity planning, cluster upgrades, and troubleshooting.

Germany, Dusseldorf - Blue Card Resident Permit Visa

Cloud Platform Engineer - Delivion GmbH | Dec 2017 - Apr 2019 | AWS & Multi-Cloud

- Architected and managed multi-cloud infrastructure for enterprise customers across AWS, Azure, OpenNebula, vSphere, and vCloud, ensuring scalability, high availability, and security.
- Designed container platforms using Docker, Kubernetes, Helm, and Rancher, and extended them by developing custom Kubernetes Operators in Go.
- Implemented advanced Infrastructure as Code automation using Terraform and Ansible to streamline cloud resource provisioning.
- Developed custom automation tools using Python and Bash, reducing manual operations and improving operational consistency.
- Fostered collaboration between development and operations teams, introducing DevOps practices, agile workflows, and CI/CD improvements.
- Operated critical platform components: Service Discovery (Consul, Zookeeper), ELK Stack, HAProxy, Kafka, PostgreSQL, Graphite, Grafana, Sensu, Prometheus, and Datadog.
- Ensured platform health by implementing robust monitoring, logging, and alerting, improving system visibility and incident response.
- Conducted DR drills, implemented backup strategies, and built comprehensive incident response processes to ensure business continuity.
- Reduced infrastructure provisioning time by 60% through automation and self-service tooling.
- Produced high-quality architecture documentation and DevOps playbooks, creating a reusable operational foundation for future teams.
- Contributed directly to upstream open-source projects through bug fixes and PRs.

Work Experience in India (Citizen) - Chennai

DevOps Engineer - Standard Chartered Bank (India) | Sep 2016 - Oct 2017

- Automated WebMethods stack deployment, reducing manual effort from 3 days to 2 hours.
- Managed 200+ servers using Ansible, ITRS, and shell scripting.
- Built centralized log analytics using ELK and handled 6 TB/day log ingestion.
- Introduced containerized NGINX Gateway with F5 load balancing.
- Managed infrastructure spanning RDBMS, SSL, SSO, and ConfigServer.

DevOps Engineer - Trimble (India) | Jun 2014 - Sep 2016

- Designed AWS infrastructure and implemented CI/CD, Terraform, and CloudFormation stacks.
- Integrated Datadog and Sumo Logic, improving application performance and platform visibility.
- Automated deployments, reducing release time by 50%.
- Migrated legacy applications to AWS and wrote cloud best-practice documentation.

Linux Systems Admin - Hewlett-Packard (India) | Feb 2011 - Jun 2014

- Worked on Control-M tool for scheduling SQL jobs using automation.
- Managed RHEL systems, Apache/Tomcat tuning, and Bash automation scripts.
- Supported web and application server platforms for enterprise customers including Airbus and Boeing.

Education

JNTU Hyderabad | 2008 - 2011 | MCA - Masters in Computer Applications - Information Systems