

Kalindu De Costa

📍 Toronto, ON

kdecosta.com 🏠
kalindu@kdecosta.com ✉️
github.com/kalindudc 🔄
linkedin.com/in/kdecosta in

Summary

- 6+ years of infrastructure and backend engineering experience
- Expertise in Kubernetes, DevOps, Cloud Native Development, Platform architecture

Experience

Senior Infrastructure Engineer | *Shopify - Team Edge Infrastructure*

May 2021 - Present

—— *Tech Stack: Kubernetes, Terraform, NGINX, Envoy, GoLang, Ruby, Python, Lua, GitOps, GCP*

- Designed and implemented Kubernetes-based routing solution, leveraging ingress-nginx for east-west and north-south traffic across 1,500+ applications and 3,000+ domains, supporting a sustained 40M RPM
- Championed the effort to create isolated canary and phased deployments for tier 1 services, reducing time to mitigate production impact from 10+ minutes down to less than 5 seconds
- Led the exploration of using GCP application load balancers for 1,000+ internal applications from Shopify's bespoke routing layer, reducing latency by 20ms (p50) and saving \$20K/month in compute costs
- Deployed and configured Cloudflare as a unified edge platform for Shopify, implementing custom dynamic WAF rules, business logic through workers, and CDN delivery for millions of merchants' static assets
- Authored robust and modular IaC using Terraform to manage GCP resources, including GKE, Cloud Storage, and Cloud Load Balancers, supporting scalable and secure infrastructure for 100s of development teams
- Owned the design and implementation of CI/CD pipelines using GitHub Actions, deploying to advanced GCP services like Service Extensions with WASM plugins, unifying deployment process greatly improving development workflow
- Championed the implementation of location-aware routing with regional affinity for critical merchant facing applications, reducing average latency by 60ms by serving requests as close as possible to the clients

IIDR Data Replication Software Developer | *IBM Canada*

Apr 2019 - May 2021

—— *Tech Stack: Java, Python, Kafka, MySQL, Oracle, zOS*

- Direct work with IBM cloud with Kubernetes / Terraform to automate operation process for CDC Cloud
- Worked largely towards the CDC for Kafka offering including Kafka Custom Processing Operator to replicate database changes as they happen and delivers them to Kafka as a target
- Attended to customers directly (L2/L3) through Salesforce, found and resolved product defects and wrote private and public documentation which eased the day-to-day development for the customers and the team

Education

University of Toronto – *Honours Bachelor of Science (B.Sc.)*

- Computer Science, specializing in Software Engineering (Co-op)

Projects

Homelab – *in-home mini datacenter with custom VPCs*

Kubernetes, Ansible, Python / Shell

- A fully functional mini datacenter with a SFF kubernetes cluster and a SBC PI cluster for deploying services like a recursive DNS sinkhole, highly available HASS deployment and NixOS based bootstrapping for all devices