Gurekam Singh Bedi

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SUMMARY

DevOps Engineer with around **4+ years** of experience delivering scalable cloud infrastructure and automation pipelines in **AWS and Azure** environments. Proficient in infrastructure-as-code (**Terraform, CloudFormation, Ansible**), container orchestration with **Kubernetes** and **Docker**, and end-to-end pipeline automation using **Jenkins**, **GitHub Actions**, and **ArgoCD.** Adept at developing custom tools with **Python**, and **Bash**, integrating monitoring with **Prometheus**, **Grafana**, and **ELK**. Passionate about operational excellence and continuous delivery at scale.

EDUCATION

Master of Applied Computing (GPA 3.6/4)   September 2023 - December 2024
University of Windsor, Windsor, ON

Bachelor of Technology (Information Technology, GPA – 3.56/4)   August 2018 - July 2022
Guru Nanak Dev Engineering College, Ludhiana, India

TECHNICAL SKILLS

- **Cloud Platforms**: AWS, Azure, Databricks, Kafka, Flink, Athena, Dataflow
- **Infrastructure as code (IAC) and Testing:** Terraform, Chef, Ansible, CloudFormation, CDK, End-to-End (e2e)
- **Containerization and Version Control:** Docker, Kubernetes, Git, GitHub
- **Continuous Integration/Continuous Deployment (CI/CD):** Jenkins, ArgoCD, GitHub Actions, Maven, Artifactory
- **Monitoring and Alerting:** Prometheus, Grafana, Telegraf, CloudWatch, Open Telemetry, Splunk, Dynatrace
- **Programming languages and Frameworks:** Python, Bash, Java, C, Node.js, Express.js, React, Spring boot, GoLang, C++
- **Databases:** MySQL, Oracle, MongoDB, Postgres, NoSQL

EXPERIENCE

DevOps Engineer   November 2023 - Present
Alpha Tickets Ltd. Toronto, ON

- Architected and deployed a high-performance ticketing platform on **Azure AKS** with **Docker** containers, handling concurrent users during peak events and ensuring 99.9% uptime.
- Automated CI/CD pipelines using **Azure DevOps** and **Github Actions**, accelerating releases and minimizing errors.
- Built **Node.Js** utilities for processing ticketing data streams and wrote optimized **SQL queries** to support analytics and reporting.
- Developed custom scripts and tools using **Python** and **Powershell** to automate routine DevOps tasks, saving 10 hours per week.
- Designed, tested, and deployed **RESTful APIs** with **Spring Boot**, automated API testing using **Postman** and Pytest.
- Configured **Prometheus** and **Grafana** on Azure for real-time monitoring and alerting, reducing MTTD by 50%.

DevOps Engineer   January 2022 - June 2023
Paytm (One97 Communications Ltd.), Noida, India

- Automated AWS infrastructure provisioning with Terraform modules for **EC2, S3, VPC, SG,** and **EMR**, reducing setup time by 50%.
- Implemented Prometheus, Grafana, and ELK stack for proactive monitoring and centralized logging; established Telegraf and kube-state-metrics, reducing manual checks by 20%, and set up EFK stack for enhanced troubleshooting and security.
- Led CI/CD pipeline migration using **Jenkins** with **Helm charts** and **ArgoCD** on **EKS**, cutting deployment failures by 70%
- Used ElasticSearch in **ELK stack** to index logs and enable fast querying for incident diagnostics.
- Developed data ingestion pipelines from AWS and on-prem **VMware** assets to MongoDB for real-time inventory tracking.
- Drove cost optimization initiatives leveraging **Kubecost**, cutting **AWS** expenses by 30% across 10 accounts.
- Led on-call support via **PagerDuty,** ensuring 99.9% uptime through rapid incident resolution and RCA.

PROJECTS

Spreadsheet Application *(Flask, Redis, Socket.IO, AWS EKS, Python, GitHub Actions)*

- Developed a real-time collaborative spreadsheet app with **Flask** and **Socket.IO** for instant updates across users.
- Implemented Redis-based write access control to allow one editor at a time with inactivity timeout handling.
- Used **DuckDB** for local-first analytics and session-based auth to enforce data-level access restrictions.
- Set up CI/CD pipelines via GitHub Actions; deployed on **AWS EKS** using **Karpenter** for dynamic node scaling.

EcoExchange *(Django, Redis, Stripe API, SQLite, JavaScript)*

- Architected containerized **Django** microservices with Redis real-time bidding, reducing latency by 40% through WebSocket optimization.
- Implemented real-time auction updates using **Redis** Channels and WebSocket for instant bid notifications.
- Automated CI/CD pipeline via GitHub Actions, implementing rigorous testing pre-deployment.
- Secured payment infrastructure with Stripe API integration and encrypted session management (100% PCI compliance).

CERTIFICATIONS

- Microsoft Certified: Azure Fundamentals AZ 900
- Microsoft Certified: Azure Administrator Associate AZ 104
- AWS Certified Cloud Practitioner