Pooja Kannan

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PROFILE SUMMARY

Engineer specializing in automating cloud-native infrastructure, securing scalable deployments, and optimizing system reliability through CI/CD, observability, and infrastructure as code. Proficient in managing containers, real-time data flows, and cloud platforms using tools like Kubernetes, Terraform, Prometheus, and Docker. Adept in Python-based microservices, secure service communication, and delivering high-performance applications across distributed environments.

EXPERIENCE

DevOps & Cloud Engineer |HCL Technologies **Aug 2021 – Aug2023**

- Automated deployment pipelines using Jenkins (Groovy) and Terraform on AWS EC2, cutting release time by 40%.
- Built Kafka-based pub/sub services and secured microservice traffic with Istio and mutual TLS, improving real-time CVE ingestion and compliance across service communication.
- Enabled full-stack observability using Prometheus and Grafana, visualizing metrics like API latency and ingestion throughput, which helped reduce incident resolution time by 30%

Cloud Operations Engineer| Concentrix **Dec 2019 – Jul 2021**

- Modernized AWS environments using Terraform and Helm to deploy scalable services on EC2, ensuring consistent infrastructure across dev and prod with reduced provisioning errors.
- Designed Jenkins pipelines for CI/CD with security scans and test stages, increasing deployment reliability and reducing rollout incidents by 25%.
- Configured Prometheus and Grafana dashboards to monitor Kafka events and container health, enhancing visibility into microservice performance and issue detection.

Cloud Infrastructure Engineer| Wipro Technologies **Dec 2018 – Dec 2019**

- Deployed backend services on Azure using Terraform and ARM templates, automating infrastructure and cutting provisioning time for new environments by 40%.
- Built CI/CD pipelines using Packer and GitHub Actions, enabling consistent image creation and zero-downtime deployments across multiple environments.
- Implemented Azure Service Bus-based email verification with secure auth, increasing user signup success rate while ensuring encrypted communication.

Junior Cloud Engineer| CSS Corp **Dec 2017 – Dec 2018**

- Automated GCP infrastructure provisioning using Terraform, including VPC, firewall rules, and autoscaling groups, which improved environment consistency.
- Managed CI/CD pipelines via GitHub Actions and deployed Node.js apps with Packer on Compute Engine, reducing image drift and improving deployment speed.
- Enabled monitoring using Prometheus and resolved infra issues under SLAs, decreasing mean time to recovery (MTTR) during high-pressure production incidents.

TECHNICAL SKILLS

- **Cloud Platforms**: AWS (EC2, S3, Lambda, EKS, VPC, CloudWatch, API Gateway), GCP (Compute Engine, GKE, Pub/Sub), Azure (VMs, App Gateway, Azure DNS)
- **Containers & Orchestration**: Docker, Kubernetes (EKS, GKE), Helm, Istio
- **Infrastructure as Code:** Terraform, Packer, Ansible, AWS CloudFormation
- **CI/CD & DevOps:** Jenkins, GitHub Actions, Groovy
- **Monitoring & Observability:** Prometheus, Grafana, CloudWatch
- **Programming Languages & Scripting:** Python, Bash, Go, Java, Shell scripting (Unix), PowerShell
- **Databases:** PostgreSQL, MySQL, MongoDB, Redis, Kafka
- **Security & Networking:** TLS/SSL, IAM, VPN, DNS, Load Balancers, Firewalls, VPC
- **Version Controls &Tools:** GitHub, Jira, ServiceNow

EDUCATION

Master of Science in Cyber-Physical Systems (Software Engineering) | Northeastern University, Boston, MA **May 2025**

PROJECTS

AskNEU

- Built a FastAPI-based RAG chatbot with Airflow and Pinecone; deployed to GKE with Istio and secured CI/CD via GitHub Actions.
- **Tech Stack:** Python, FastAPI, Airflow, Pinecone, GCP (GKE, GCS), GitHub Actions, Istio, Prometheus, Grafana

CloudCraft

- Automated GCP backend deployment using Terraform, Packer, and GitHub Actions with Cloud SQL, Pub/Sub, and autoscaling
- **Tech Stack:** Node.js, GCP, Terraform, Packer, GitHub Actions, Cloud SQL, Pub/Sub, DNS