Pooja Kannan

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PROFILE SUMMARY

DevOps and Platform Engineer with 5 years of experience building cloud-native infrastructure, automating CI/CD pipelines, and managing Kubernetes-based deployments on AWS and GCP. Skilled in Terraform, Jenkins, GitHub Actions, and Helm, with hands-on expertise in creating secure, scalable environments. Experienced in integrating automated testing frameworks and improving system reliability using Prometheus and Grafana. Proven track record of accelerating delivery cycles, reducing deployment errors, and supporting high-availability systems.

EXPERIENCE

DevOps & Cloud Engineer | HCL Technologies

Aug 2021 - Aug2023

- Delivered secure, scalable microservices on AWS using CI/CD pipelines and observability tools, improving deployment speed by 40%.
- Deployed Go-based services on EC2 with Terraform, PostgreSQL, and IAM roles within isolated VPCs.
- Built Jenkins pipelines using Groovy to automate test and deployment workflows, reducing manual errors by 50%.
- Created Kafka-based pub/sub pipelines for ingesting CVEs, improving vulnerability tracking and stream processing.
- Integrated Istio for secure service mesh communication with mutual TLS and traffic policies
- Enabled full-stack observability using Prometheus and Grafana for latency, ingestion, and deployment metrics.
- Enforced compliance and system resilience using CloudWatch monitoring, IAM policy automation, and security groups.

Cloud Operations Engineer | Concentrix

Dec 2019 - Jul 2021

- Implemented secure DevSecOps practices and containerized CI/CD workflows to modernize AWS-based cloud environments.
- Maintained and scaled backend services on AWS EC2 with infrastructure defined as code using Terraform and deployed via Helm charts.
- Automated CI/CD flows in Jenkins, integrating unit testing, vulnerability scans, and staged deployments.
- Managed Kafka topics and consumer groups to enable event-driven data pipelines for internal threat tracking systems
- Integrated Istio for traffic shaping, policy enforcement, and access controls across microservices.
- Configured Grafana dashboards to monitor Kafka throughput, API latency, and container health using Prometheus metrics exporters.
- Defined IAM policies and security rules, ensuring secure access and encrypted communication across services.
- Provided L2 product support for infrastructure issues related to container networking, authentication, and firewall policies.

Cloud Infrastructure Engineer | Wipro Technologies

Dec 2018 - Dec 2019

- Deployed backend services using Node.js on Azure VMs with infrastructure provisioned via Terraform and Azure Resource Manager templates.
- Created Packer images and GitHub Actions pipelines for automated, repeatable deployments across dev and prod.
- Built a secure email verification flow with Azure Service Bus and implemented user authentication using bcrypt.
- Managed DNS routing and HTTPS exposure using Azure DNS and Application Gateway for production-ready access.
- Configured Azure Monitor and Alerts to ensure uptime, auto-failover, and performance visibility.

Junior Cloud Engineer | CSS Corp

Dec 2017 - Dec 2018

- Supported infrastructure builds on GCP using Terraform for VPCs, firewall rules, and dependencies.
- Deployed Node.js/Express apps on Compute Engine with Packer, reducing provisioning time and drift.
- Managed GitHub Actions pipelines for CI/CD with integrated testing and rolling updates.
- · Contributed to centralized logging and metric dashboards using Prometheus, autoscaling, and patching
- Assisted with DNS, image hardening, and load balancer configs in early-stage production systems.
- Resolved system-level issues and supported infrastructure triage under strict SLAs, improving response time in high-pressure production environments.

TECHNICAL SKILLS

- Cloud Platforms: AWS (EC2, S3, EKS, IAM, CloudWatch), GCP (Compute Engine, Cloud SQL, Pub/Sub, DNS), Azure
- IaC & CI/CD: Terraform, Packer, Jenkins, GitHub Actions, Helm, Ansible
- Containers & Orchestration: Docker, Kubernetes, Istio
- Monitoring & MLOps: Prometheus, Grafana, Kafka, GCP Monitoring
- Languages & Tools: Java, Python, Go, Bash, PowerShell, SQL, Git, GitHub
- Security & Networking: TCP/IP, DNS, VPN, NAT, TLS, routing policies, firewalls, IAM, IP allowlists

EDUCATION

Master of Science in Software Engineering | Northeastern University, Boston, MA

Graduated May 2025

PROJECTS

AskNEU – AI Chatbot with Vector Search & CI/CD

<u>Link</u>

- Built a Flask-based chatbot powered by OpenAI with Pinecone embeddings and automated CI/CD on GCP
- Tech Stack: Python, Flask, OpenAl API, Pinecone, GCP, GitHub Actions, React, Prometheus, Grafana, Postgresql

CloudCraft - Infrastructure Automation on GCP

Link

- Deployed a Node.js backend using Terraform and Packer on GCP Compute Engine with CI/CD via GitHub Actions
- Tech Stack: Node.js, GCP, Terraform, Packer, GitHub Actions, Cloud SQL, Cloud DNS, Pub/Sub