# Hamza Khan

# Cloud DevOps Engineer

### **PROFILE**

Certified Kubernetes & AWS Engineer with expertise in automating multi-cloud deployments and managing Kubernetes clusters at scale. Skilled in infrastructure automation, GitOps workflows, and CI/CD pipeline development to streamline deployments. Passionate about designing and automating scalable, secure, fault-tolerant and cost-optimized cloud-native solutions that enhance system performance.

Specialties: Kubernetes | AWS | Terraform | ArgoCD | GitHub Actions | Multi-Cloud | Security & Compliance

## PROFESSIONAL EXPERIENCE

#### Cloud DevOps Engineer, PufferSoft Pvt Ltd ⊘

11/2023 - present

- Managed 16 Kubernetes clusters, increasing system availability by 30% through automated monitoring, optimized auto-scaling policies, and proactive performance tuning.
- Automated deployment workflows with AWS CodePipeline and Elastic Beanstalk, accelerating releases and improving scalability.
- Automated infrastructure provisioning with Terraform, reducing setup time by 50% and ensuring smooth multi-cloud deployments.
- Migrated Docker images and Helm charts from Nexus to Harbor, improving storage efficiency and images management in production.

#### **DevOps Engineer**, AntonX Pvt Ltd *⊘*

08/2023 - 02/2025

- Containerized and migrated monolithic applications to Kubernetes, improving scalability and cutting infrastructure costs by 25%.
- Designed secure AWS cloud environments (ECS Fargate, VPC, RDS), reducing downtime by 45% through optimized network configurations and failover strategies.
- Designed and deployed CI/CD pipelines, reducing deployment errors by 60% and boosting developer efficiency.
- Set up a self-hosted monitoring system with real-time Slack alerts, allowing faster issue detection and response.

# **CERTIFICATES**

Certified Kubernetes Administrator (CKA) @

AWS Certified Solutions Architect Associate SAA-CO3 @

# **SKILLS**

Linux & System Administration: Configuration, Shell Scripting, XRDP with H264, LVM, Filesystem Management

Cloud Platforms: AWS (API Gateway, ECS Fargate, Lambda, API Gateway) | Azure (VMs, AD with SSO)

Networking and Security: Site-to-Site VPNs, Load Balancing, IAM Policies, WAF, DNS(Cloudflare)

Containers & Orchestration: Docker, Containerd, Kubernetes, Helm, Kustomize, Istio

Automation & CI/CD: Terraform, GitHub Actions, Gitlab CI, GitOps(ArgoCD)

Monitoring & Logging: Prometheus, Grafana, EFK, CloudWatch

Databases: MySQL, PostgreSQL, MongoDB, Redis

# **PROJECTS**

### Kubernetes-Driven Approach to Scalability and Cost Optimization *⋄*

- Challenge: The monolithic architecture limited scalability and resilience, causing performance bottlenecks under high traffic.
- Action: Deployed Kubernetes workloads using Helm & Kustomize, implemented autoscaling (HPA & Cluster Autoscaler), and integrated real-time monitoring with Prometheus & Grafana via Helm.
- Result: Achieved 99.9% system uptime, reduced infrastructure costs by 25%, and enabled scaling to handle peak traffic efficiently.

### Elastic Beanstalk and Code Pipeline Implementation for Python App &

- Challenge: Manual deployments slowed down releases, introduced inefficiencies, and made scaling applications difficult.
- Action: Automated the deployment process with AWS CodePipeline and Elastic Beanstalk, integrating CI/CD for seamless updates. Used Terraform to provision infrastructure, including API Gateway and CodePipeline, ensuring consistency and scalability.
- Result: Boosted developer efficiency by 35%, reduced time to production, and established a fully automated, scalable infrastructure

### Migrated Docker Images from Nexus to Harbor with S3 Integration *∂*

- Challenge: Nexus registry used disk storage, causing scalability issues and access management due to no SSO in the free version.
- Action: Automated migration of 2TB Docker images from Nexus to Harbor using regetl. Integrated Amazon S3 as backend storage, improving scalability, cost efficiency, and enabled SSO (OIDC) for better access management.
- Result: Optimized storage costs and image delivery, improved security with Harbor's scanning, and enabled a cloud-native registry

### **COURSES**

**AWS SysOps Administrator Associate Course SOA-CO2**, Stephane Maarek *⊗* 01/2024 − 03/2024

Terraform Associate Certification by Vijin Palazhi, KodeKloud *∂* 11/2023 − 12/2023

Artificial Intelligence (ML/DL), Uet Peshawer[NAVTTC] 07/2021 - 01/2022

## **EDUCATION**