



# Hamza Khan

## Cloud DevOps Engineer

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### PROFILE



Certified Kubernetes and AWS Engineer with hands-on experience automating multi-cloud environments and managing Kubernetes clusters at scale. Skilled in IaC, GitOps, and CI/CD pipelines to streamline deployments and ensure robust cloud infrastructure. Passionate about designing secure, scalable, and cost-efficient cloud-native solutions that enhance performance and resilience.

- Specialties: AWS · Kubernetes · Rancher · Terraform · ArgoCD · GitHub Actions · Helm · Cloud Security & Compliance

### PROFESSIONAL EXPERIENCE




#### Senior Cloud Engineer, PufferSoft Pvt Ltd

11/2023 – Present

- **Managed 16 Kubernetes clusters** using Rancher, for enterprise customers including **Apporto** , increasing system availability by 30% through automated monitoring, optimized auto-scaling policies, and proactive performance tuning.
- **Automated deployment workflows** for high-traffic applications at **SentinelRisk** , using AWS CodePipeline and Elastic Beanstalk, accelerating releases and improving scalability.
- **Provisioned multi-cloud infrastructure** with Terraform for internal and client-facing environments, reducing setup time by 50% and ensuring consistent deployments for customers like **Apporto**, **Verquin** and **Sentinel**.
- **Migrated Docker images and Helm charts** from Nexus to Harbor, enabling secure and scalable container delivery with S3 backend — deployed in **Apporto's** production environment.
- Set up **GitOps-based deployment strategy using ArgoCD** for managing multi-env Kubernetes clusters, reducing configuration drift and enabling rapid, auditable rollbacks.

#### Cloud DevOps Engineer, AntonX Pvt Ltd

05/2023 – 05/2025

- **Containerized and migrated monolithic applications** to Kubernetes for **Leopards Courier Services** , enhancing scalability and reducing infrastructure costs by 25%.
- **Designed and deployed secure AWS environments** (ECS, VPC, RDS) for **Now By HMC** , improving uptime by 95% through high availability and failover strategies.
- **Built CI/CD pipelines** using GitHub Actions and GitLab CI for **EdgeNow** , reducing deployment errors by 60% and increasing developer throughput.
- **Implemented a self-hosted monitoring and alerting system** with Slack integration for internal use at **AntonX**, enabling faster incident response and visibility.

### SKILLS

**Cloud Platforms:** AWS (EKS, ECS Fargate, Lambda, API Gateway, WAF), Azure (VMs, Container Apps, AD SSO)

**IaC & Automation:** Terraform, SaltStack, GitOps (ArgoCD), CI/CD (GitHub Actions, GitLab CI), Jinja2 templating

**Linux Administration:** systemd, kernel modules, lvm

**Orchestration:** Kubernetes, Helm, Kustomize, Rancher

**Networking:** VPC design, NAT, Ingress, Service Mesh, VPN, DNS (Route 53, Cloudflare), Load Balancing

**Monitoring & Logging:** Prometheus, Grafana, EFK, Fluent Bit, CloudWatch, OpenSearch

**Security & Access:** oidc, sso, rbac, CIS k8s benchmarks

**Databases:** PostgreSQL, MySQL, MongoDB, Redis

## CERTIFICATES

Certified Kubernetes Administrator (CKA)	AWS Certified Solutions Architect Associate SAA-CO3
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## PROJECTS

### Kubernetes-Driven Approach to Scalability and Cost Optimization, *Leopards Couriers Services*

- The monolithic architecture limited scalability and resilience, causing performance bottlenecks under high traffic.
- Deployed Kubernetes workloads using Helm & Kustomize, implemented autoscaling (HPA & Cluster Autoscaler), and integrated real-time monitoring with Prometheus & Grafana via Helm.
- 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, *SentinelRisk.ai*

- Manual deployments slowed down releases, introduced inefficiencies, and made scaling applications difficult.
- 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.
- 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, *Apporto*

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

### Linux Server Management with SaltStack and Custom Automation, *Apporto*

- Manual deployment of XRDP and Fluent Bit across ubuntu servers caused inconsistency, inefficiency, and resource wastage due to idle XRDP sessions.
- Used SaltStack to automate installation of custom-built H.264 XRDP and Fluent Bit with environment-specific config via Jinja and grains; implemented auto-shutdown logic for idle XRDP sessions.
- Reduced deployment effort by 80%, improved remote access performance, standardized log forwarding, and lowered compute costs.

### Multi-Cluster Kubernetes Management with Rancher, *Apporto*

- Apporto needed to operate over a dozen K8s clusters across AWS, Azure, and on-prem environments, supporting different clients across multiple regions.
- Deployed **Rancher** to centralize Kubernetes management across k8s clusters for clients including **SNHU** , **ASU** , **De Montfort University** . Configured centralized authentication (OIDC), implemented **RBAC policies**, automated cluster provisioning using Rancher's UI and API, and integrated with GitOps tooling for declarative app delivery.
- Reduced cluster onboarding and rollout time by **80%**, improved platform uptime and consistency across 16+ clusters, and streamlined multi-tenant operations for Apporto's education-sector clients.

## EDUCATION

<b>Bachelor of Science in Computer Science</b> , <i>The University of Agriculture</i> CGPA: 3.8	2020 – 2024   Peshawar
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## COURSES

<b>AWS SysOps Administrator Associate SOA-CO2</b> , <i>Stephane Maarek</i>	01/2024 – 03/2024
<b>Terraform Associate Certification</b> by <i>Vijin Palazhi, KodeKloud</i>	11/2023 – 12/2023
<b>Artificial Intelligence (ML/DL)</b> , <i>Uet Peshawar [NAVTTTC]</i>	07/2021 – 01/2022