Arbab **Khalil**

Senior DevOps Engineer · Platform Architect · Site Reliability Engineer · Cloud Infrastructure

Remote from Lahore, Punjab, Pakistan

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"Be the change that you want to see in the world."

Summary

Senior DevOps Engineer and Platform Architect with 8+ years of experience designing and implementing cloud-native infrastructure solutions serving millions of users. Proven track record of leading digital transformation initiatives, reducing deployment times by 70%, and managing infrastructure costs exceeding $2M annually. Expert in Kubernetes, Azure, AWS, Infrastructure as Code (Terraform), and GitOps practices. Successfully architected platforms handling 85,000+ concurrent users and led cross-functional teams of 3-5 engineers. Strong background in Site Reliability Engineering (SRE), CI/CD automation, and observability solutions. Passionate about building Internal Developer Platforms and promoting DevOps culture across organizations.

Skills

Cloud Platforms	Microsoft Azure (AKS, Azure DevOps, ARM), Amazon Web Services (EKS, EC2, S3, CloudFront), Google Cloud Platform
Container & Orchestration	Kubernetes, Docker, Helm, Kustomize, ArgoCD, Argo Rollouts, External DNS, Cert Manager
Infrastructure as Code	Terraform, Terragrunt, Atlantis, Azure Resource Manager (ARM), CloudFormation
CI/CD & GitOps	GitOps, ArgoCD, GitHub Actions, GitLab CI/CD, Azure DevOps, Jenkins, Blue-Green Deployment, Canary Deployment
Programming & Scripting	Python, Bash, PowerShell, SQL, C++, YAML, JSON
Monitoring & Observability	Prometheus, Grafana, ELK Stack (Elasticsearch, Logstash, Kibana), Datadog, Azure Monitor
Security & Secrets Management	HashiCorp Vault, SOPS, Azure Key Vault, Azure Active Directory, RBAC, Network Security
Data Engineering	Apache Kafka, Apache Spark, Pandas, Cassandra, PostgreSQL, MongoDB, Redis, ETL Pipelines
Languages	Urdu, English

Work Experience

Motive
Remote, Pakistan

Senior DevOps Engineer - Developer Productivity
Mar. 2025 - Present

- Architected and optimized CI/CD pipelines using GitHub Actions and Tekton, achieving 40-50% reduction in build and deployment times through workflow splitting and caching optimization for major repositories including KeepTruckin webapp.
- Resolved critical EKS infrastructure migration issues by troubleshooting and fixing node selector configurations, resource limits, and Auto Scaling Group (ASG) versions, ensuring seamless CI/CD execution across diverse environments.
- Led standardization initiatives for infrastructure tagging and owner conventions across AWS, Datadog, and GitHub, implementing automation via GitHub Actions to improve consistency and enable future infrastructure automation.
- Provided rapid incident response for release blockers and CI/CD deployment failures, collaborating with cross-functional teams (QA, SRE, application developers) to perform root-cause analysis and ensure production deadlines were met.
- Automated Tekton pipeline configurations for branch-specific node group assignments and resource management, eliminating manual interventions and improving deployment reliability for fleetcard and related services.
- Supported hotfix and emergency release cycles by manually managing cherry-picks, merges, and tagging when automation was insufficient, ensuring critical fixes reached production within tight SLA requirements.
- Enhanced technical documentation and onboarding processes in Confluence and GitHub, reducing new engineer ramp-up time and improving team knowledge sharing across the Developer Productivity organization.
- Championed automation of repetitive infrastructure tasks including pipeline configuration management, secret management policies, and owner tag standardization, maximizing team efficiency and reducing operational overhead.

AERQ
Hamburg, Germany

Senior DevOps Engineer
Apr. 2023 - Feb. 2025

- Spearheaded the transformation of the DevOps team into a Platform team by developing an Internal Developer Platform, significantly enhancing team efficiency and collaboration.
- Architected and implemented an Infrastructure-as-Code (IaC) approach using Terraform and Terragrunt, streamlining infrastructure management and deployment processes.
- Deployed and managed a Kubernetes cluster in Azure (AKS), ensuring robust and scalable infrastructure for seamless application deployment.
- Successfully deployed and managed ArgoCD, Hashicorp Vault, Prometheus Stack, external DNS, and Cert Manager within the Kubernetes cluster, optimizing application management and security.
- Developed and maintained Helm charts and values files for multiple applications, ensuring consistent and efficient application deployment.
- Created GitLab pipelines for building and pushing Docker images and Helm charts, enabling efficient and reliable software delivery.
- Developed an IaC pipeline using Atlantis, ensuring version-controlled infrastructure changes and promoting consistency and reproducibility.
- Collaborated with cross-functional teams to configure and manage Azure storage accounts, databases, Redis cache, and Azure Active Directory (AD), ensuring optimal performance and security.

Redify s.r.l
remote, Bologna - Italy

Consultant DevOps Engineer (Freelance)
Feb. 2024 - Sep. 2024

- Migrated Parker HCL Commerce from VM-based deployment (v8) to Kubernetes-based deployment (v9), ensuring a seamless transition for critical applications.
- Set up and configured Kubernetes clusters in Azure AKS while tailoring Helm charts using Kustomize to meet Parker's specific requirements.
- Managed application secrets securely using SOPS integrated with ArgoCD, supporting multiple values files for environment-specific configurations.
- Developed an ArgoCD custom plugin to enable the combined use of Kustomize and Helm, enhancing deployment flexibility and efficiency.
- Oversaw Azure DevOps pipelines, managing workers and writing pipelines for deploying applications into Kubernetes clusters.
- Implemented Argo Rollouts for Blue-Green Deployments, dynamically modifying deployments into argo rollouts at runtime through Kustomize to maintain compatibility with community-provided Helm charts.

ChaiOne Inc.
remote, Houston, TX 77002, USA

DevOps Architect (Freelance)
MaY. 2022 - Apr. 2024

- Architected a hybrid deployment architecture for the Terminal Management System (TMS), enabling seamless integration of on-premises and cloud-based infrastructure.
- Developed Terraform code to provision and manage AWS infrastructure, including VPC, EC2, CloudFront, S3, EKS, ECR, and other related services, ensuring scalability, security, and high availability.
- Created Helm charts to streamline the deployment of the TMS application on EKS.
- Implemented Azure DevOps for continuous integration and continuous deployment (CI/CD) of applications, automating the build, test, and deployment processes.
- Successfully deployed the TMS application on edge devices connected through site-to-site VPN, ensuring reliable and secure access to critical systems.
- Utilized CoreOS to create ISO images for deploying the edge devices, simplifying the deployment process and ensuring consistency across multiple devices.
- Leveraged k3s to deploy the TMS application on edge devices using Helm charts, optimizing resource utilization and improving performance.
- Created AWS infrastructure for the IoT application, ensuring scalability, security, and high availability, and implemented CI/CD pipelines to automate deployment across multiple environments using Terraform.

edX LLC.
remote, MA US

Site Reliability Engineer
May. 2021 - May. 2022

- Managed huge AWS infrastructure for 50+ microservices used by millions of users world wide.
- Managed IaC using Terraform and imported Existing AWS Infrastructure to Terraform with respect to environments.
- Migrated legacy service from auto scaling group to Elastic Kubernetes Service.
- Worked on ArgoCD to deploy microservices on kubernetes.
- Wrote helm charts for microservices.
- Wrote bunch of python scripts to automate regular maintenance jobs.
- Served OnCall Rotation on weekly basis.

Emumba. Pvt., Ltd.
Islamabad, Pakistan

Senior DevOps Engineer
Dec. 2019 - May. 2021

- Worked as a DevOps architect in the team to deploy web application in Google Cloud Platform that was being used in Cisco Live 2020 and 2021
- It scaled to 150 application nodes and 32 database nodes during the event to handle a peak of 85,000 and an average load of 40,000 requests per second for a three days global event.
- Monitoring of Infrastructure and Application using Datadog.
- Lead a team of 3 people and also directly communicated with client to gather the requirements, present the accomplished work and get their feedback.
- Managing data pipeline for millions of telecom devices using Kafka
- Benchmarking data Ingestion from Kafka into Amazon Redshift and Druid databases.
- Benchmarking Amazon Redshift, Timescale DB and Apache Druid for query performance.

AN10 Pvt., Ltd.
Islamabad, Pakistan

DEVOPS AND DATA ENGINEER
Apr. 2018 - Nov. 2019

- Worked in small team at early stage of startup and learned to work in true DevOps culture.
- Worked for the design, development and deployment of scalable micro services based IoT platform.
- Worked on ETL pipelines using python processors and kafka for streaming and batch processing.
- Created Gitlab-CI pipelines for building, testing and deploying the platform.
- Managed AWS and GCP infrastructure for platform deployment.
- Deployed and Managed Kafka, Elasticsearch and Cassandra clusters
- Wrote OLAP queries in Spark SQL and optimizing them for Big Data.

xFlow Research Inc.
Islamabad, Pakistan

SOFTWARE DESIGN ENGINEER
Jan. 2017 - Mar. 2018

- Developed and optimized software solutions for network traffic analysis and performance monitoring systems.
- Collaborated with cross-functional teams to design scalable software architectures for high-throughput data processing.
- Implemented automated testing frameworks and contributed to continuous integration processes.

Plumgrid Inc.
Islamabad, Pakistan

SOFTWARE DESIGN ENGINEER
Dec. 2015 - Jan. 2017

- Designed and developed network virtualization solutions and Software-Defined Networking (SDN) components.
- Worked on OpenStack integration and network overlay technologies for cloud infrastructure.
- Contributed to the development of distributed systems and network control plane software.
- Participated in code reviews, technical documentation, and agile development processes.

Education

National University of Computer and Emerging Sciences - FAST
Islamabad, Pakistan

B.S. IN ELECTRICAL ENGINEERING
Aug. 2011 - Aug. 2015

- Specialized in Embedded Systems and Computer Networks.
- Received ICT R&D Scholarship, awarded to promising students by the government.

Certificates

Validation Number

Dec. 2019 **AWS Certified Cloud Practitioner,** Amazon Web Services (AWS)
Available Upon Request

Jan. 2024 **Certified Kubernetes Administrator (CKA),** KodeKloud Training Platform
Certificate Available Upon Request

Jan. 2024 **GitOps Fundamentals with ArgoCD,** KodeKloud Training Platform
Certificate Available Upon Request

Dec. 2023 **Prometheus Certified Associate (PCA),** KodeKloud Training Platform
Certificate Available Upon Request

Jun. 2023 **Microsoft Azure Administrator Associate (AZ-104),** KodeKloud Training Platform
Certificate Available Upon Request

Oct. 2023 **Python Certified Associate Programmer (PCAP),** KodeKloud Training Platform
Certificate Available Upon Request

Honors & Awards

2014	**1st Place,** Micro Controller Programming	*NEO, GIKI*
2014	**1st Place,** Micro Controller Programming	*TECHTIQS, IU*
2015	**1st Place,** Micro Controller Programming	*TECHTIQS, IU*
2014	**1st Place,** Micro Controller Programming	*FETEX, IIUI*