

Arbab Khalil

AZURE · KUBERNETES · PLATFORM · SRE · DEVOPS

Remote from Lahore, Punjab, Pakistan

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

Summary

I am a Problem Solver with over 8+ years of experience of working with linux, containers, Kubernetes, AWS, Azure ... I am strong believer of DevOps as a culture and help my team and organization to adopt this culture. I am a huge fan of Open Source Softwares and prefer to use them and help others who are trying to use them. I love to automate everything and anything for which my goto tool is python. A quick learner, good team player, and communicator who is passionate about learning new technologies and taking on new challenges. Seeking a team where skills can be applied, and new technologies can be learned.

Skills

Cloud Microsoft Azure, Amazon Web Services (AWS), Google Cloud Platform (GCP)

IaC Terraform, Terragrunt, Atlantis

Cloud Native Tools Docker, Kubernetes, Helm, ArgoCD, Argo Rollouts, External DNS, Cert Manager, Vault, SOPS

Programming Python, C++, SQL, Bash

Version Control & CICD Git GitHub Azure-DevOps Gitlab, GitOps, ArgoCD, Github Actions, Gitlab-CI, Jenkins

Observability Prometheus, Grafana, ELK, Datadog

Data Engineering Kafka, Spark, Pandas, Cassandra, PostgreSQL, MongoDB, Redis

Languages Urdu, English

Work Experience

AERQ

Hamburg, Germany

SENIOR DEVOPS ENGINEER

Apr. 2023 - Dec. 2024

- 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. 2011

- 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

Plumgrid Inc.

Islamabad, Pakistan

SOFTWARE DESIGN ENGINEER

Dec. 2015 - Jan. 2017

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

- Dec. 2019 **AWS Cloud Practitioner**, Amazon Web Services (AWS)
Jan, 2024 **CKA Certification Course - Certified Kubernetes Administrator**, KodeKloud
Jan, 2024 **GitOps with ArgoCD**, KodeKloud
Dec, 2023 **Prometheus Certified Associate (PCA)**, KodeKloud
Jun, 2023 **AZ-104: Microsoft Azure Administrator**, KodeKloud
Oct, 2023 **PCAP - Python Certification Course**, KodeKloud

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