M Hamza Razzaq

DevOps Engineer, 4x AWS Certified

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Experience Summary

Bachelor's degree (4 years) in Computer Science with 3.5+ years of software industry experience.

3+ years of hands-on experience in DevOps, supporting, automating, and optimizing critical deployments in AWS, leveraging configuration management, CI/CD, and DevOps processes.

An experienced team player with excellent communication skills and has the ability to work independently.

Experience of working in Agile Development and Scrum Model.

Technical Skills

AWS Cloud - IAM, VPC, S3, EC2, ECS, EKS, RDS, Route53, ELB, ASG, Cloudfront, Lambda, CloudWatch, StepFunctions, SNS, SQS, KMS, Cloudformation, ElastiCache and others

CI/CD - Jenkins, ArgoCD, DroneCI, CircleCI, CodeBuild, CodeDeploy, CodePipeline

Microservices/Containers - Docker, Docker Compose, Kubernetes, Istio, Cert Manager, Helm

Infrastructure as Code - Terraform, Cloudformation

Scripting - Bash, Python

Others - NGINX, OpenVpn, Certbot, New Relic, Git

Experience

EMPG Labs — *DevOps Engineer*

Arbisoft — *DevOps Engineer*

Northbay Solutions — *DevOps Engineer*

Depository Works — *Software Engineer*

Certifications

AWS Certified DevOps Engineer - Professional

AWS Certified Solutions Architect - Associate

AWS Certified Developer - Associate

AWS Certified Cloud Practitioner

Education

Punjab University College of Information and Technology — *Bachelor in Software Engineering (3.62 CGPA)*

2015 - 2019

Achievements

Golden Badge in Python programming language on Hackerrank

Winner in 2 and **Runner up** in 2 programming competitions held at UET, GCU and Comsats Lahore

PROJECTS

Project — Migrate application to Kubernetes

Technologies: AWS, EKS, Kubernetes, Docker,Jenkins, Terraform, Kustomize

- Worked on writing Dockerfiles for microservices and implemented docker layer caching
- Worked on Jenkins pipelines for automated CI of microservices
- Worked on setting up ArgoCD for continuous deployment of applications to multiple clusters using Application Sets.
- Worked on writing Kubernetes manifest files in Kustomize for multiple environments
- Worked on Terraform scripts for creating infrastructure on AWS for multiple environments

Project — Design and create AWS infrastructure for a microservices based application and implement CICD

Technologies: EKS, Kubernetes, Docker, DroneCI, ArgoCD, Terraform, IAM, EC2, VPC, RDS, Cloudwatch, ECR, ALB, MongoDB, OpenVpn

- Worked on writing Terraform scripts for AWS infrastructure (IAM, VPC, EC2, EKS, ASG, ALB, RDS)
- Worked on creating fully automated and self healing CICD workflow for automated deployments
- Worked on installation of applications (Nginx Ingress Controller, ArgoCD, DroneCI, Cert Manager) on newly created EKS cluster using Helm
- Worked on implementing logging solution using Fluentbit and CloudWatch
- Worked on creating OpenVpn Access Server to provide access of AWS private resources to the developers

Project — An e Commerce based product which gives suggestions for best deals while shopping from an online store i.e. Amazon, Walmart and others

Technologies: VPC, EC2, RDS, Auto-scaling, Cloudformation, CloudWatch (Logs, Metrics, Alarms), Load Balancers, S3, CodeDeploy, LaunchTemplate, Nginx, CirlceCI, Bash Scripting, New Relic

- Worked on migrating their whole infrastructure from standalone ec2 machines to auto-scaling groups based architecture with load balancers
- Worked on creating and improving CICD pipelines for faster delivery using CircleCI and AWS CodeDeploy
- Worked on writing cloudformation scripts for creating infrastructure i.e. VPC, Launch Template, Auto-scaling Groups, Load Balancers, CloudWatch Alarms, Log Groups, Metrics
- Worked on Nginx performance tuning and reduced their response time over 70%
- Worked on writing bash scripts for automating repeated manual tasks
- Worked on configuring New Relic as an APM tool for better application performance insight

Project — Conversion of monolith application to microservices based application and Automation of CI/CD process

Technologies: Kubernetes, Docker, Docker Compose, Terraform, Jenkins, ArgoCD, Nuget Server, Cert Manager, OpenVpn, Helm

- Worked on converting a monolith application to a microservices based application
- Worked on writing terraform scripts to create AWS infrastructure i.e. EKS, Launch Template, RDS, EFS, ElastiCache
- Worked on installation of applications (Nginx Ingress Controller, ArgoCD, Prometheus Stack etc) on newly created EKS cluster using Helm
- Worked on creating CICD pipeline using Jenkins and ArgoCD
- Worked on configuring a private nuget package server to host private nuget packages
- Worked on writing docker-compose files for deployment on the development environment with Jenkins

Project — This is a lift, modify, shift migration project in which a production application running on Rackspace servers was converted into docker based application and then migrated to AWS with 3 environments

Technologies: Terraform, RDS, EC2, ECS, VPC, ALB, Route53, IAM, S3, ElasticCache, DynamoDB, FSx, Secret Manager, Auto-scaling, Docker, NewRelic, FluentMigrator

- Worked on designing AWS architecture for migration
- Worked on designing ECS architecture for running dockerize version of the application
- Worked on writing terraform scripts for IaaC for managing the whole infrastructure on AWS
- Worked on application performance monitoring using NewRelic APM tool

Project — Orchestration of workflow using Step Function and Lambdas

Technologies: Step Functions, AWS Transfer Family, Lambda, Serverless Framework

- Worked on writing and updating Lambdas in python using serverless framework
- Worked on writing and updating step functions for orchestration of workflow
- Worked on setting up SFTP server on AWS using AWS Transfer Service

Project — Decompose a tightly coupled docker-compose based open source project and deploy each service on ECS Cluster separately

Technologies: Docker, Docker-compose, Bash, ECS, ECR, EFS, RDS, VPC

- Worked on understanding the architecture of open source docker-composed based project
- Worked on writing bash scripts for updating the current architecture of the project
- Worked on deployment of each microservice on separate ec2 machines
- Worked on deployment of each microservice as an independent task on ECS

Project — Database migration project which includes converting Oracle on-premise database to PostgreSQL database and migrate it to the AWS RDS Aurora

Technologies: Cloudformation, RDS PostgreSQL Aurora, EC2, IAM, S3, SecretManager

- Worked on writing Cloudformation templates of RDS, EC2, S3, IAM Roles and Policies for automation of infrastructure provisioning
- Worked on taking snapshots of RDS in one account and recover the RDS database in a different account
- Worked on writing Bash scripts for automating installation of Oracle 12.2 Database and AWS schema conversion tool, Python3, Pip, PostgreSQL Client, Oracle Client and others in EC2

Project — A product in which an organization can deploy its AWS infrastructure very quickly and in very short time which reduces the cost and time for building an infrastructure

Technologies: Amazon Web Services, Linux, Bash, YAML

- Worked on writing code for infrastructure management according to the best practices provided by AWS
- Worked on managing infrastructure as a code of many AWS services using Cloud Formation in YAML language and Terraform. These services include EC2, Backup, Auto Scaling, Launch Template, Code Build, Config and others
- Worked on automating different tasks using bash scripts which includes Docker images uploading to ECR, configuration of NGINX like enabling SSL, environment variable setting at boot time
- Worked on managing security of the infrastructure using IAM, Config and Security Groups