

KARAM HUSSAIN

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SUMMARY

DevOps/Cloud Architect with 2 years of experience in cloud infrastructure, network design and automation. Proven ability to design, implement, and maintain cloud-based systems and applications. Proficient in using multiple DevOps tools to improve the scalability and reliability of cloud solutions. Experienced in creating and deploying comprehensive cloud architectures.

EXPERIENCE

DevOps / Cloud Architect

K2X **August 2023 - May 2024, Peshawar, Pakistan**

- Deployed and managed applications on Amazon Web Services (AWS) platform, optimizing performance and scalability.
- Set up and configured private servers from scratch, including networking and security measures.
- Utilized Proxmox for server virtualization, reducing hardware costs and improving resource utilization.
- Demonstrated proficiency in LINUX operating systems, including command-line interfaces for efficient system management.
- Automated builds and deployment tasks using Jenkins, streamlining the development process.
- Implemented continuous integration and delivery workflows using Code Pipeline, ensuring rapid and reliable software delivery.
- Practiced version control with GitHub for source code management, facilitating collaboration and code review processes.
- Utilized Docker for containerization, enhancing application deployment and scalability.
- Deployed basic applications on Microsoft Azure cloud platform, expanding knowledge of cloud infrastructure.
- Set up and managed web servers using NGINX and APACHE, attaching SSL certificates to ensure secure communication.
- Deployed various applications across different platforms, ensuring smooth deployment processes.
- Leveraged GitHub Actions for automating software workflows directly within GitHub.
- Wrote Bash scripts to automate deployment tasks and perform regular operations.
- Migrated heavy-load ML applications to Proxmox, optimizing resource allocation and minimizing costs.
- Led and organized DevOps team from scratch, providing training and assigning tasks to interns.
- Worked on Kubernetes managing Cluster, Nodes, Pods etc.
- Collaborated with developers to modify code for production environments, ensuring smooth deployment and operation.
- Introduced PM2 monitoring logs for developers to track production environment logs effectively.
- Set up and managed MongoDB, MySQL, and PostgreSQL databases, including migration tasks.
- Configured Redis server for efficient caching and data storage.
- Implemented multiple port forwarding in Proxmox for VMs, optimizing network connectivity.
- Created public and private subnets in Proxmox, assigning IP addresses and managing network configurations.
- Managed DNS configurations using Route53, Azure DNS, and performed DNS migrations.
- Worked with various AWS services including Lambda functions, S3, Route53, SNS, SQS, Autoscaling, ELB, EBS, API Gateway, ECS, IAM, CloudFront, Certificate Manager, ECR, CodeCommit, CodePipeline, and DynamoDB.
- Dockerized company existing applications, utilizing ECR for image creation and assisting clients with deployment processes.
- Migrated MongoDB and MySQL databases to new environments, ensuring data integrity and reliability.
- Deployed multiple applications including Laravel, CodeIgniter, Node.js, Golang, and Flask applications.

DevOps / AWS Solution Architect/ Cloud support

Fiverr **June 2023 -February 2024**

- Completed 85 projects with consistent 5-star reviews.
- Worked on diverse projects:
- ECS Fargate deployments
- Troubleshooting and issue resolution
- Application migrations to AWS and Azure
- Expertise in database recovery and migration.
- Assisted in domain name migrations between hosting providers.
- Setup VPNs for secure communication.
- Developed and implemented pipelines for deployment automation.
- Provided scripting solutions for task automation.
- Implemented Lambda functions for EC2 start/stop automation, integrating with API Gateway for cost optimization.
- Designed over 20 unique architectures tailored to client needs.
- <https://www.fiverr.com/s/X9xp7G>

AWS Solution Architect

Contour Software **November 2022 - February 2023, Islamabad, Pakistan**

- Creating Infrastructure in AWS for applications: Developed expertise in designing and establishing robust infrastructure on the Amazon Web Services platform, ensuring applications run seamlessly and scale efficiently.
- Creating Better Architecture in AWS Cloud: Enhanced the design and performance of cloud architectures on AWS, optimizing for cost, reliability, and performance. Regularly evaluated new AWS services to refine and upgrade the infrastructure.
- Terraform: Studied Terraform technology how to have different versions of infrastructure in AWS and how to create infrastructure in AWS using code.
- Linux: Acquired basic skills in the Linux operating system in basic command-line tasks. This knowledge facilitated smoother deployments, troubleshooting, and overall server management.
- Docker: Became adept at containerization techniques using Docker, creating, deploying, and managing containers for various applications. This proficiency allowed for more flexible, scalable, and isolated application environments, improving deployment workflows and application reliability.

PROJECTS

Serverless Client Application Deployment on AWS

Fiverr • January 2024 - January 2024

- Deployed frontend on S3 with CloudFront for serverless distribution.
- Utilized ECS Fargate for backend deployment, ensuring scalability and flexibility.

Microservices ML Application Deployment:

K2x • November 2023 - January 2024

- Orchestrated deployment of a microservices-based ML application with Jenkins pipeline.
- Dockerized each service and application.
- Implemented on Proxmox on a Hetzner server, leveraging Hetzner DNS for domain management.

Setup of Proxmox Server Infrastructure:

K2x • August 2023 - October 2023

- Installed and configured Proxmox, creating public and private subnets with network bridges doing port forwarding and setting up NGINX / Apache.
- Migrated multiple company projects to Proxmox VMs, ensuring isolation and resource and cost optimization.

Migration of Client Application to AWS:

Fiverr • July 2023 - August 2023

- Migrated client's on-premises application to AWS, including databases, WordPress site, and domain configurations.

Manual Autoscaling Using Aws Service and Boto3

Master's Project • April 2023 - July 2023

- Monitored application load metrics using Boto3 scripts.
- Defined scaling policies based on CPU utilization, memory usage, etc.
- Created a Lambda function triggered by CloudWatch alarms.
- Used Boto3 to spin up or terminate EC2 instances dynamically.
- Updated load balancer configuration via Boto3 as instances scaled.
- Integrated with CloudWatch and SNS for monitoring and notifications.
- Visualized scaling activities in Grafana for real-time insights.
- <https://karam12341234.s3.us-east-2.amazonaws.com/aws+thesis.pdf>

ERP Application

Personal Application • August 2020 - December 2020

- Creating an ERP system in Windows Form Application.
- MYSQL Server database was used.
- C# language was used for building the application.

EDUCATION

Bachelors in Computer Science

City University of Science Information and Technology • Pakistan, Peshawar • 2021 • 3.04

CERTIFICATIONS

Udemy Labs - Online Kubernetes Lab

KodeKloud • 2024

- Learning how to manage Clusters, managing Nodes, Pods , Deployments etc.
- Taking backups, Managing security in Cluster and all other K8s components.

AWS Cloud Practitioner

AWS • 2023

- Helps in understanding different services in AWS.

AWS Solution Architect Associate

AWS • 2023

- Certified by AWS in providing better solution for applications in cloud.

AWS Solution Architect

Contour Software • 2023

- Understand the application and provide better Solutions in AWS Cloud.

SKILLS

Frontend: CSS, HTML, Basic JavaScript, Reactjs, Angular, Bootstrap.

DevOps: Jenkins, CodePipeline, Docker, Github Action, Bash Scripting, Linux, AWS, Azure, Grafana, Kubernetes, etcd

Cloud: AWS, Azure, Virtualization in Dedicated Server.

Programming Languages: C#, PHP, Bash, Python, JavaScript.

Backend: PHP, Express JS, Basic Concepts of Django Flask.