Mohammed Ajhar Hussain DevOps Engineer

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PROFILE

Cloud enthusiast with a year of cloud experience. **AWS** and **Azure certified**. Graduated from **AWS re/Start** with Primed Talent, mastering fundamentals in **Linux**, **Python**, **Networking**, **Databases**, **Security**, **CI/CD**, and **AWS**. Proficient in automating tasks using Python scripting and Terraform. Familiar with **Docker** containerization and work involving **AWS**, **Terraform**, **GitLab**, and **Kubernetes**. Completed **The Cloud Resume Challenge** showcasing expertise in essential skills.

PROFESSIONAL EXPERIENCE

AWS re/Start Graduate, *Primed Talent*   *July 2022 - October 2022* 🔗
Skills Profile:
- Demonstrated **Linux administration** skills, executed **cron** jobs and completed labs for **DNS**, **Python**, **Databases** and more.
- Designed **secure**, **high-performing**, **cost-effective**, **highly available**, and **scalable systems** using AWS services according to the best practices defined in **AWS's well-architected framework**.
- Gained knowledge in different areas like deployment automation using **Cloud Formation**, **DevOps processes like CI/CD**, Monitoring & logging using **Cloud Watch**, **Cloud Trail**, and Configuration Management tools like **GIT**.

PROJECTS

AWS Cloud Resume Challenge: Serverless Web Portfolio with Visitor Counter and CI/CD, *ajharresume.com* 🔗
Developed a **serverless** web application, showcasing a dynamic HTML resume with a visitor counter. Utilized various AWS services such as **S3**, **Lambda**, **API Gateway**, **DynamoDB**, and **CloudFront** to build a responsive and secure web portfolio.
- Secured the URL with HTTPS using CloudFront and **CloudFlare**, ensuring a professional and secure web presence.
- Implemented a visitor counter using **Python** and **DynamoDB** to track and display the number of site visitors.
- **Configured API Gateway and Lambda** to manage interactions between the front end and the DynamoDB database.
- Utilized **Terraform** to deploy the application and define AWS resources in an infrastructure-as-code (IaC) approach.
- Set up **GitHub Actions** for continuous integration and deployment (**CI/CD**) of both backend and frontend codebases.

3-Tier Architecture on AWS via Terraform and CI/CD Pipeline 🔗
Hosted an Apache web application on an EC2 server via **Terraform**
- Initial Infrastructure comprised of: a VPC, a public and private subnet, EC2 instances, an RDS instance and a NAT Gateway.
- The EC2 instances were in each subnet with a **NAT gateway** providing SSH access to the private EC2 instance.
- An **RDS** instance was also provisioned to store the data.
- Route Tables & Security Groups were set up to allow incoming traffic to the server.
To improve **reliability**, **availability, efficiency** and **cost optimization** I added:
- An **application load balancer** with **auto-scaling groups** to distribute load and horizontally scale to meet demands
- Ensured that provisioned EC2 from ALB ran in separate subnets.
- Provisioned a slave RDS database to do reads and failover in case of a failing master database.
- Set up a **GitHub workflow** to further automate changes to infrastructure.

AWS Serverless Reminder Application, *Apply To Job-A-Tron* 🔗
A **serverless** application that sends reminders to apply to jobs at set times.
- Hosted on an S3 bucket by loading assets including HTML, CSS and JavaScript.
- The customized JavaScript communicated with an **API gateway** that, in turn, used a **Lambda function** as the backing compute which executed a state machine via **Step Functions**
- The state machine was integrated with other AWS services such as the Lambda function to send an email via **SES** or a text message notification via **SNS**.

SKILLS

Trained: | Linux | Python | AWS | Azure | Terraform | CI /CD | Docker | Kubernetes | Developing: | Go

CERTIFICATES

Azure Fundamentals AZ-900 🔗 | AWS Certified Cloud Practitioner 🔗 | AWS re/Start Graduate 🔗

EDUCATION

Queen Mary University Of London, *BEng (CertHE), Mechanical Engineering*

Brampton Manor Academy, *A levels from A* - C, Maths, Further Maths & Physics*

Cumberland school, *Achieved 11 GCSEs from A* - C, including Maths and English*

INTERESTS

I love learning and experiencing new things. I train in martial arts and occasionally skip for quick cardio and conditioning. I spend a lot of my free time productively whether it's upskilling, reading, exercising or helping out friends and family. I'm currently learning the Arabic language and improving daily by immersing myself in the language and culture.