Shady Osama Khalifa

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Profile

Experienced AWS-focused DevOps Engineer skilled in streamlining development, enhancing system reliability, and delivering innovative cloud solutions.

Professional Experience

NextGen softwares May 2024 – present

DevOps Engineer

- AWS Environment: Created development and production environments for each application component, ensuring stable and scalable deployments.
- Frontend: Hosted on AWS Amplify, chosen for its seamless integration with modern frontend frameworks and continuous deployment capabilities.
- Backend: Dockerized the backend and deployed it on AWS Elastic Beanstalk using the "Docker platform," leveraging Elastic Beanstalk's managed services for scaling and health
- Database: Migrated to Amazon RDS with PostgreSQL, benefiting from RDS's managed database services for provisioning, patching, backup, and scaling.
- Admin Panel: Hosted on AWS Amplify, ensuring consistent scalability and reliability as the frontend application.
- Continuous Integration/Continuous Deployment (CI/CD): Used Jenkins to implement a CI/CD pipeline for the backend, automating the deployment processes to minimize errors.

Projects

Jobsolv ∂

- This project is designed to automatically apply for jobs and internships across various platforms.
- Hosted the backend on AWS Elastic Beanstalk and automated the CI/CD pipeline using Jenkins.
- Hosted the frontend on AWS Amplify, leveraging its scalability and ease of deployment to ensure a good user experience.
- Migrated the database to Amazon RDS, leveraging its robust features and reliability.

GitOps IaC ∂

- Repository Content: IaC files for AWS infrastructure.
- Workflow: Stage branch for testing, Main branch for production.
- Validation: Validates code for correctness and preview.
- Deployment: Controlled deployment to production for security and stability.

GitOps Application ⊘

- Fetch: Retrieves latest code for deployment.
- Build: Compiles code, resolves dependencies, and checks code quality.
- Test: Ensures application meets standards and functions correctly.
- Deploy: Uses Helm charts for efficient deployment on AWS EKS.

Vprofile App Dockerization *∂*

- Java app dockerized with MySQL, Memcached, RabbitMQ, Tomcat, and Nginx for deployment.
- Dockerfiles for each service (MySQL, Java app, Nginx), with Docker Compose for orchestration.
- Relies on MySQL, Memcached, RabbitMQ, and Nginx for various functionalities.
- Dockerized setup allows easy scaling of individual services for increased loads or resources

Vprofile K8s Deployment ⊘

- Uses kops for deploying a multi-tier app on Kubernetes, simplifying cluster management.
- Includes backend, MySQL, Memcached, and RabbitMQ services for a comprehensive stack.
- Designed for scalability, enabling easy horizontal scaling of components.
- Deploys each component as a separate service for efficient resource utilization.

Terraform Two Tier Architecture *⊘*

- Terraform project on AWS for 2-tier architecture with ALB, ASG, NAT Gateway, RDS, Route 53, Security Groups, and VPC.
- Organized with main.tf, vars.tf, outputs.tf per component, and main.tf, providers.tf, terraform.tf, terraform.tfvars, vars.tf
- ALB routes traffic, ASG manages instances, NAT Gateway provides internet, RDS hosts database, Route 53 handles DNS, Security Groups manage traffic.
- VPC isolates network, defines IP range, subnets, route tables, and internet gateway for security.

Languages

• English • Arabic



Problem Solving - Data Structure , Algorithms

Operating System — *Linux (Ubuntu, CentOS)*

 ${\bf Networking}-{\it CCNA}$

Cloud Platform -AWS

Version Control — *Git*, *GitHub*, *GitLab*

 ${\bf Containerization} - {\it Docker}$

Container Orchestration — *Kubernetes, AWS ECS*

IaC — Terraform, CloudFormation

CI/CD Tools — Jenkins, GitHub Actions, CircleCI

Programming Language — *Python, Bash, C++*

Web Server Management — *Nginx*

Bachelor of Information Systems,

Configuration Management — *Ansible*

Monitoring Tools — Prometheus, Grafana

Faculty of Management Technology and Information Systems.

Education

Involvments

ACPC Port-Said University Community

Mentor and Problem Solver Developer

- Created challenging questions to enhance trainees' problem-solving skills.
- Provided guidance and support to trainees throughout their training program.

Competitve Progarmer

- Skilled in competitive programming, emphasizing C++ proficiency.
- Actively competed in ECPC and other contests.
- solved 500+ problems on platforms like Codeforces.

2020 – 2024

Port-Said, Egypt