# **Mohamed Emad Mohamed**

# Cloud | DevOps Engineer

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# **SUMMARY**

"As a highly skilled DevOps and Backend Engineer, I possess extensive experience in designing and implementing automated CI/CD pipelines and building secure and resilient infrastructure. With a strong background in backend development using Django and substantial experience with AWS, I am committed to continuously enhancing my skills and applying my expertise to impactful projects within a reputable organization."

# **EDUCATION**

**Faculty of Computer Science 6 October University** 

Computer Science Department (CS), Grade: Very Good

10/2020 - 06/2024

# **SKILLS**

**Version Control** 

Git & Github

Containerization & Orchestration

Docker & Docker Swarm & Kubernetes (Helm &

isito)

**Cloud Provider** 

**AWS** 

**Monitoring System** 

Prometheus & Grafana

**GitOps** 

ArgoCD

**Configuration Management** 

Ansible

**Storage Solutions** 

Ceph & Longhorn

**Back End** 

Django

**Linux Administration** 

Admin 1 & Admin 2

Jenkins & Github Action & Gitlab

**Database** 

MySQL & MongoDB

**Web Server Nginx** 

**Nginx** 

**Infrastructure As Code (IAC)** 

Terraform

**Scripting Language** 

Bash & Python

DevSecOps tools

OWASP & NeuVector & Trivy

Network

**CCNA** 

#### **PROIECTS**

### **Deploy Java App on ECS Using GitHub Actions**

Tools: GitHub Actions, SonarCloud, Docker, Maven, AWS ECR, AWS ECS

#### Overview:

This project establishes a robust CI/CD pipeline for deploying a Java application on AWS ECS. The pipeline is powered by GitHub Actions, incorporating code quality checks via SonarCloud, Docker for containerization, Maven for build automation, and AWS ECR for Docker image storage. The final deployment on AWS ECS ensures a seamless end-to-end solution for deploying Java applications.

# Complete CI/CD Pipeline for Deploying a Java App on RKE Using Jenkins

Tools: Jenkins, SonarQube, Docker, Maven, K8S, Rancher, Nexus, Trivy, Prometheus, Grafana, Terraform, Kube Audit

#### Overview:

This project involves deploying a Java application on Rancher Kubernetes Engine (RKE) using a Jenkins-driven CI/CD pipeline. The project emphasizes automation, security, and monitoring. It integrates SonarQube for code quality checks, Docker for containerization, Maven for build automation, Nexus for artifact storage, Trivy for security scans, and Kube Audit for Kubernetes compliance. Terraform is used for managing infrastructure as code, ensuring reliability. The project also includes monitoring using Prometheus and Grafana, providing a comprehensive solution for Java application management on RKE.

# Website Development Using AWS

Tools: AWS LightSail, AWS EC2, AWS Lambda

#### Overview:

This project aims to develop a secure, reliable, and scalable website using AWS services. The website is hosted on AWS LightSail, a virtual private server that supports multiple websites. AWS EC2 or AWS Lambda can be used to enhance the website's functionality. The project may involve creating a website to store student details for a university or to track home expenses, emphasizing usability and availability.

# Hospital Care Application Using Django (Backend)

**Tools:** Django **Overview:** 

This project involves developing a backend system using Django to manage patient care in a hospital setting. The system integrates communication between the reception staff, doctors, administration, and pharmacy, ensuring seamless and efficient patient care. The project focuses on streamlining processes and enhancing the quality of healthcare services provided.

# **E-commerce Website Using Django**

Tools: Django Overview:

This project involves developing an e-commerce website using Django, providing users with a virtual store to purchase products. The website features a shopping cart for easy selection of goods and a streamlined order confirmation process. This project requires understanding various technologies and implementing them effectively to create a robust and user-friendly e-commerce platform.

# **E-Learning System Using Django**

**Tools:** Django **Overview:** 

This project focuses on developing an eLearning system using Django, designed to deliver educational content in an organized and interactive manner. The system allows educators to create courses, upload study materials, and manage students' progress. It includes user authentication, course enrollment, and a content management system that supports various multimedia formats. The eLearning platform also features discussion forums, quizzes, and progress tracking, offering a comprehensive solution for online education. The project emphasizes scalability, security, and ease of use, making it suitable for a wide range of educational institutions and learning environments.

# **CERTIFICATES**

AWS Certified Cloud Practitioner (NTI) 

CCNA National Telecommunication Institute (NTI)

# LANGUAGES