# Shaimaa Mahmoud ELsaadi

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# **Objective**

Entry-level DevOps Engineer with a strong foundation in automation, infrastructure management, and CI/CD pipelines. Proficient in tools like Docker, Kubernetes, and Jenkins, with hands-on experience in building and maintaining scalable cloud infrastructure.

### Education

# Bachelor Degree, Faculty of Engineering, Cairo University.

2018 - 2023

- Major: Electronics and Electrical Communication.
- Grade: Good.
- Graduation Project : Implementing an AUTOSAR COM stack.
  - Grade: Excellent.

# Internship

# DevOps Trainee, Egypt Digital Pioneers Initiative

05/2024 - 10/2024

- Completed a 159-hour structured training program on core DevOps skills, including prompt engineering and DevOps essentials.
- Gained hands-on experience in configuration management using Ansible and containerization using Docker, including advanced practices.
- Set up CI/CD pipelines with Jenkins and GitHub Actions and worked with Kubernetes for container orchestration.
- Acquired skills in monitoring systems with Prometheus for efficient resource tracking and alerting.
- Explored AWS Cloud fundamentals and cloud architecture design principles to optimize infrastructure.
- Learned infrastructure as code practices using Terraform and developed proficiency in setting resource dependencies.

### **Trainee**, Avelabs *⊘*

11/2023 - 12/2023

- Built code following C and Ansi C using GCCx86 and TI compiler for Tiva C target using Batch file and Make file to generate pre-processed, assembly, and executable files.
- Displayed information about symbols in the executable file.
- Achieved requirements and code coverage criteria of 100%.
- Knew what is the state machine and hierarchical state machine and how to design and implement them.
- Learned about MISRA code guidelines

# **Skills**

#### **Web Servers**

Apache | Nginx

#### Scripting

Bash, Python

#### **Version Control**

Git, GitHub

#### CI/CD Tools

Jenkins, GitHub Actions

# **Programming Language**

C, Embedded C, C++, Python

## **Computer Networking & Security**

# **Operating Systems**

Linux Administration (Ubuntu, Red Hat)

### **Containerization**

Docker, Kubernetes

## Infrastructure-as-Code (IaC)

Terraform

#### **Cloud Platforms**

**AWS** 

# Monitoring and Logging

Prometheus, Grafana

#### **Configuration Management**

Ansible

# **Projects**

# Deploying EKS Cluster and Microservices App with CI/CD €

11/2024

Implemented a scalable CI/CD pipeline for deploying Flask-based microservices on Amazon EKS. Automated infrastructure provisioning and application deployment using Terraform, Kubernetes, and Jenkins. Key contributions included:

- Provisioned an EKS cluster with Terraform, including VPC and security configurations.
- Built Docker images and deployed Flask applications as Kubernetes pods.
- Automated build, test, and deployment workflows with Jenkins.
- Configured Kubernetes LoadBalancer Services for external traffic routing.

# **CI/CD Pipeline for Solar System App,** DEPI final Project *⊘*

10/2024

- Built an automated CI/CD pipeline using GitHub, Jenkins, Docker, Terraform, and Ansible.
- Deployed the app on AWS cloud platform with Docker images stored in Docker Hub.
- Automated infrastructure provisioning with Terraform and managed configurations using Ansible.
- Integrated Amazon DocumentDB as the database and used Slack for pipeline notifications.

# Automate CI/CD Pipeline for Prometheus and Grafana ∂

09/2024

- Created an EC2 instance at AWS using Terraform.
- Installed Prometheus and Grafana using Ansible on EC2 instance .
- Automated with GitHub Actions

# **Implementing an AUTOSAR COM stack,** Graduation Project *⊘*

09/2022 - 07/2023

- Sponsors: Brightskies
- Implemented a CAN communication stack using ARM Cortex M the TM4CMicro-controllers with its different software modules:
  - AUTOSAR COM Module (Services Layer).
  - PDU Router Module (Services layer).
  - CAN Interface Module (ECU Abstraction Layer).
  - CAN Driver Module (MCAL Layer).

#### Courses

Programming for Everybody, Coursera

**Database Fundamentals,** Mahara-Tech *⊘* 

**AWS Academy Cloud Foundations, AWS Academy** 

## **Extracurricular Activities**

Ahla Shabaab Team, Volunteer

2021 - present

**Resala charity,** volunteer

2020 – present

MUSLIM FAMILY Charity, volunteer

03/2019 – present

Google Developer Student Clubs, Content Writer

2022 - 2023