

# Mohamed Essam Mohamed

## DevOps Engineer

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### Objective

Driven DevOps Engineer with practical experience gained through internships and extensive self-learning. Ready to apply my expertise in tools and technologies like Docker, Kubernetes, Ansible and AWS to optimize infrastructure, enhance CI/CD processes, and play a key role in impactful projects. Dedicated to continuous growth and eager to collaborate with a dynamic team where I can expand my skills and implement effective, scalable solutions.

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### SKILLS

- Docker | Kubernetes | GitHub Actions | Ansible | CI/CD | Linux | Bash Scripting | Python
- DevOps | AWS | Cloud

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### EXPERIENCE & Projects

#### Graduation Project: | 10.2023 – 06.2024

- AWS Account Management: Created and managed the AWS account for the team, implementing IAM roles and policies to ensure access control based on the principle of least privilege.
- Infrastructure Setup: Designed and set up the AWS infrastructure, including network design and EC2 instances, following best practices for security and scalability.
- CI/CD Pipeline: Designed and implemented a CI/CD pipeline using GitHub Actions, integrating security best practices and secret management throughout the process.
- Dockerization and Deployment: Dockerized Node.js and Python machine learning application and successfully deployed it through the CI/CD pipeline on AWS.
- Database Management: Installed and configured MongoDB, establishing and securing appropriate database connections for application integration.

#### Internship in DevOps | DEPI (Digital Egypt Pioneers Initiative) | 06.2024 – Present

- Git and GitHub: Learned version control systems to manage codebase efficiently, including branching, merging, pull requests, and collaborative workflows
- Configuration Management using Ansible: Gained hands-on experience in automating software provisioning, configuration management, and application deployment using Ansible playbooks and roles.
- Containerization basics using Docker: Understood the fundamentals of Docker, including creating, managing, and orchestrating containers to ensure consistent environments across development and production.
- Docker Advanced: Advanced knowledge in Docker, including creating multi-container applications, managing Docker networks and volumes, and optimizing Docker images.
- CI/CD using GitHub Actions: Implemented continuous integration and continuous deployment pipelines using GitHub Actions to automate the build, test, and deployment processes, ensuring code quality and faster delivery.
- Introduction to Kubernetes: Learned the basics of Kubernetes for container orchestration, including deploying, scaling, and managing containerized applications using Kubernetes clusters.
- Continuous Monitoring using Prometheus: Implemented monitoring solutions with Prometheus to collect metrics, monitor application performance, and set up alerting for proactive issue resolution.
- AWS Cloud: Gained experience with Amazon Web Services (AWS), including EC2, RDS, and VPC, to deploy and manage scalable and secure cloud infrastructure.
- Terraform: Learned Infrastructure as Code (IaC) principles using Terraform to provision and manage cloud resources, ensuring reproducible and version-controlled infrastructure deployments

**Internship in IT | NOKIA Summer Internship Program** | **08.2022 – 09.2022**

- Had the chance to learn about NOKIA internal networks and their newest technologies.
- Learned about Communication Channels and Distribution.
- Learned the Professional way to Communicate with team members throughout the project.

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## **EDUCATION**

**Helwan University** | *Bachelor of Computer and Software Engineering*

Cairo, Egypt | **09.2019 – 06.2024**

□ **GPA:** 2.5/4.00. Overall Rating of Good