Amr Yasser

MLOps Engineer

+20 01112488663 amr.yasser200.26@gmail.com
linkedin.com/in/amr-yasser-1027542a4 github.com/amr-yasser226

Education

University of Science and Technology, Zewail City **Sep 2023 – Expected Jun 2027**
B.Sc. in Computational Science and AI *Concentration: Data Science and Artificial Intelligence*

Work Experience

Prodigy InfoTech **Sep 2024 – May 2025**
Machine Learning Intern *Remote*

- Collaborated with Prodigy InfoTech to develop 5 production-ready ML models in computer vision and NLP domains, improving average model accuracy by 15%.
- Designed end-to-end pipelines, from data ingestion and preprocessing to model training and serving using Python, scikit-learn, and TensorFlow.
- Implemented MLOps best practices: version control (Git), CI/CD workflows, Docker containerization, and experiment tracking, reducing deployment time by 40%.

Zewail City University **Jan 2024 – May 2025**
Junior Teaching Assistant *Zewail City, Egypt*

* Led problem-solving workshops for 300+ students, boosting average assignment scores by 20%.
* Graded coursework and provided one-on-one mentoring to improve learning outcomes.
* **Acknowledgment Letter:** View PDF

Notable GitHub Projects

- **Intrusion Detection on Kaggle**: Architected and delivered an end-to-end ML pipeline to classify network-traffic into benign, DDoS, DoS, Mirai, Recon, and MITM. Responsibilities included data cleaning; feature engineering (rate-ratio features, payload entropy); class-imbalance handling via SMOTE and ensemble techniques; and hyperparameter tuning with Optuna. Achieved a private score of 0.9163 and public score of 0.9146—earning 2nd place out of over 40 teams.
- **ML for Network Intrusion Detection**: Architected a live packet-processing pipeline with Scapy & pandas, engineered temporal and payload-based features, trained autoencoders & isolation forests for anomaly detection, and dockerized Flask APIs for model serving in production-like environments.
- **Data Governance Workflow**: Designed a CI/CD-driven data lifecycle pipeline using DVC & GitHub Actions. Implemented encryption (Fernet, Caesar, Playfair), generated GDPR/CCPA/HIPAA compliance reports, and integrated data-quality validations to ensure auditability and reproducibility.
- **Ambulance Management System**: Engineered a simulation of emergency dispatch operations utilizing custom Stack, Queue, and Priority Queue structures in C++. Implemented real-time patient prioritization (Normal, Special, Emergency), Dijkstra's routing for optimal ambulance assignment, and produced performance metrics including average wait times and utilization metrics.
- **Deep Learning Journal**: Curated a professional journal of deep learning experiments in Jupyter notebooks, documenting CNN and Transformer implementations in PyTorch Lightning & TF-Keras. Maintained reproducible training pipelines with Weights & Biases, and provided narrative insights to facilitate knowledge transfer and collaborative research.

Technical Skills

- **Languages & Databases:** Python, SQL, R, NoSQL, C++, Java, JavaScript
- **Frameworks & Tools:** scikit-learn, TensorFlow, Keras, PyTorch, MLflow, Airflow
- **DevOps & Infra:** Docker, Kubernetes, Terraform, Git, GitHub Actions, DVC, Jenkins