Marwan Waly

Sr. MLOps @_VOIS | MSc @uottawa

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🎖 Certificates

- AWS Certified Machine Learning – Specialty ⌕
- AWS Certified Cloud Practitioner ⌕

📰 Publications

Benchmarking Meta-Heuristic Optimization, *Int. J. Advanced Networking and Applications* ⌕
08-2020

🧠 Skills

MLOps *(MLFlow, Terraform, Docker)*

Python *(Flask, Selenium, beautifulSoup, xlsxWriter, rivescript, openCV)*

AWS *(S3, ec2, lambda function, API gateway, RDS, Glue, SageMaker, QuickSight, Step Function)*

Machine learning *(LLMs, PyTorch, FBprophet, XARIMAS, Sklearn, NLTK, PyTesseract, Pandas, Numpy)*

Data Visualization *(Matplotlib, Plotly, Streamlit, Seaborn)*

Databases *(MySQL, MongoDB, Workbench)*

Version control *(Github, Gitlab)*

Project Management *(SAFE Agile, Jira)*

Other programming languages *(Java, C, C++ also familiar with R)*

Soft Skills *(Presenter, Problem solver and creative thinker, Self-motivated, Fast learner)*

💼 Professional Experience

Barq Systems (Dubai Police), *NLP Engineer* ⌕
01-2024 – present | Dubai, UAE
- Resident AI Engineer at **Dubai Police** innovation center.
- Develop **NLP** solutions for multiple police departments.
- Responsible for creating AI solutions from **POCs** to **production**.
- Working on Arabic text with **LLMs**.

_VOIS (Vodafone Intelligent Solutions) ⌕

Sr. MLOps Engineer
09-2023 – 01-2024 | Cairo, Egypt
- Developing **time series forecasting** solutions to solve complex problems and help the clients in their decision making process with **90+% accuracy**.

- Design and deploy **end-to-end automated ML pipeline** from data extraction and modeling to generating reports and dashboards on **AWS**.

- Working side by side with the Data Science team to deliver the needed features and APIs.

- Used tools:
    Python(**Flask**, **FB prophet**), Cloud (**GCP**, **AWS**), **Git**, **Docker**, **Jira**

MLOps Engineer
03-2022 – 09-2023 | Cairo, Egypt

Epsilon AI, *ML instructor* ⌕
05-2023 – 10-2023 | Cairo, Egypt
Part time instructor for ML diploma

Valoro ⌕

Software Engineer - Python
2020 – 2021 | Cairo, Egypt
- Implement serverless functions on **AWS** using **Lambda function**.
- Write web scraping scripts using **beautifulSoup**.
- Build chatbots using **Rivescript**.
- Create Restful API using **Flask API** and run it on **AWS** using **ec2**.
- Involved in **Database** analysis and design.

Intern
2019 | Cairo, Egypt

Courses

MLOps, *DataCamp*
2023
MLOps concepts, MLFlow, DVC

AWS Machine Learning Specialty, *Udemy*
2021

Business acquisition, *Dale Carnegie*
2021

English, *Berlitz* ⤤
2021
7 levels out of 10 are completed.

Problem solving, *PST*
2018
60 hours training with C++

Data Science, *DataCamp*
2017 – 2018
Python, Data visualization, Pandas, Numpy, and multiple other courses.

Activities

Programming Instructor
08-2018
I was responsible for introducing programming for children (8-13 years old) using Scratch "MIT website for children"

Member at Geeks Student activity at Helwan University, *Academic member*
2017 – 2018
I was responsible for recording lectures about Database on YouTube at Da7i7a channel (Link ⤤).

Also participated as Public relation member in events.

Languages

- Arabic Native

- English Fluent

Education

University of Ottawa,
Master of Electrical and Computer Engineering ⤤
2021 – 2022 | Canada
Professional master degree in AI and Data Science

Helwan University, *Bachelor of Computer Science*
2016 – 2020 | Cairo, Egypt
Faculty of Computers and Artificial intelligence

GPA : 3.49 / 4 - Excellent

GP : Data Entry Automation System - Excellent

Projects

ML Forecasting
05-2023 – present
Time series forecasting project aims to help our clients to forecast:
- Number of requests they will receive in the next 6 months.
- The cost of handling these requests.
- How many requests they can handle according to their headcount plan.

Python (**FBprophet**), **AWS**, **Docker**, **MySQL**, **Git**, **Jira**

Digital Twin, *Big data real time application*
03-2022 – 05-2023
Digital Twin is a digital replica of call centers in multiple markets, which provides:
1) Real time monitoring
2) Forecasting
3) Alerting

Python (**Flask**, **FB prophet**) , **Docker**, **MySQL**, **GCP**, **Git**, **Jira**

Closing the gap between Universities and Job Market, *Ottawa Graduation project*
2021 – 2022
This project aims to help students or professors to understand the job market by showing them insights from the current job market.

Python, **Selenium**, **NLP** models, **Flask**, **Power BI**

Data Entry Automation System, *Helwan Graduation project*
2019 – 2020
Extract tables (normal or has merged cells) from (printed or handwritten) documents and convert it to excel file after applying **OCR** and multiple computer vision analysis.
- English and Arabic OCR are built **from scratch**.
- Arabic characters dataset is Generated.

Python, **OpenCV**, **Sklearn**, **Pytesseract**, **XlsxWriter**, **Numpy**