Mohamed Shehata

Data Scientist

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EDUCATION

9-Month Professional Diploma: AI And Machine Learning Engineer Track

Information Technology Institute (ITI), MCIT - Alexandria

10/2023 - 07/2024

09/2019 - 06/2023

Bachelor's Degree In Data Science

Faculty of computers and data sciences, Alexandria University.

CGPA: 3.6797 /4 (Excellent)

TECHNICAL SKILLS

- **Programming language**: python, java, c++, R.
- **Deep Learning**: TensorFlow, Keras, PyTorch, spaCy, NLTK, surprise.
- **SQL**: Joins, sub-queries, views, indexes, triggers, procedures, Cursors, window functions.
- Data Visualization and BI Tools: Power BI, Tableau, Plotly-Dash.
- Concepts: NLP, Computer Vision, Recommender Systems, Generative AI, Transformers, LLMs, Time series.
- Data Analysis, Classical ML, web scraping: scikit-learn, Pandas, NumPy, Selenium, Streamlit.
- **Big Data** & **Stream Processing**: Hadoop, Spark (PySpark), Kafka, Hive.
- Data Warehousing and ETL: Talend.
- Robotic Process Automation (RPA): UiPath.
- Tools & Technologies: Cloud (AWS), Docker, Linux, Bash Scripting, MongoDB, Git, Agile (Trello).

PROJECTS

Blind Assistance System (Faculty Graduation Project)

- Developed a solution using smart glasses and a mobile app for blind individuals, incorporating object detection, text reading, scene description, cash/food recognition, and face recognition.
- Research paper: Smart Equipment for Assisting Blind People Published in (IJCSIS), Vol. 21, No.7 July &
- Tools: TensorFlow, pytorch, opencv.

Comprehensive Fashion Recommender Systems (ITI / Twenty Too)

Developed three recommendation systems: similarity-based, personalization-based (appeal and look), and frequently bought together (complete the look) Using FP-Growth, CLIP, and Two-Tower Models, Vector Database and Deployed with Flask Tools: mlxtend, Transformes, PyTorch, Pinecone, Flask

Head Pose Estimation (ITI) ∅

- Predicted orientation angles (roll, pitch, and yaw) of human faces in images and videos using classical ML techniques.
- Tools: OpenCV, MediaPipe, Scikit-learn, XGBoost, Streamlit.

Necromancer: Colorization and Captioning for Videos and Images (ITI) &

- Used DeOldify for artistic colorization of black-and-white media into vibrant images and videos. Implemented Salesforce's BLIP model for contextual captions and integrated audio using gTTS for enhanced multimedia experience
- Tools: transforms, DeOldify, Opency, torch, gTTS, Streamlit

IMDb Analysis and recommendation system For Top Movies and Series (ITI)

- Developed end-to-end IMDb analysis pipeline, web scraping, data preprocessing, exploratory data analysis, dashboard development, recommendation system. (Featured on Plotly Official Page)
- Tools: Selenium, Plotly Dash, Pandas, Scikit-learn

Customer segmentation and anomaly detection (ITI) @

- Conducted clustering and anomaly detection on a Credit Card Dataset, focusing on data preprocessing, dimensionality reduction, and data visualization, get business meaning, clusters description.
- Tools: scikit-learn, scipy, pandas, matplotlib.

Arabic Dialect Detection App (ITI) &

- Implemented an Arabic Dialect Detection app to classify text into five distinct Arabic dialects using NLP techniques.
- Tools: TensorFlow, sckit-learn, Streamlit, pandas

CineMate: Movie Recommendation System app on MovieLens dataset (ITI) &

- Implemented interactive user and item recommendation pages, utilizing Neural Collaborative Filtering for user recommendations and Item Similarity for movie recommendations.
- Tools: TensorFlow, sckit-learn, Plotly-Dash, pandas

Sentiment Analysis on Amazon Food Review Dataset (Classification and Deployment)

- Implemented sentiment classification on Amazon Food Review dataset and deployed the model.
- Tools: pandas, scikit-learn, nltk, re, streamlit.

Airlines Tweets Analysis Dashboard (ITI) 🔗

- Designed a dashboard to analyze customer sentiment towards airlines using Twitter data.
- Tools: power bi.

COURSES

- Data Scientist Professional with Python (116 hours) DataCamp
- Data Analyst in Power BI (48 hours) DataCamp
- Data Analyst in SQL (39 hours) DataCamp
- Data Analyst in Tableau (42 hours) DataCamp
- Advanced Data Analysis Udacity
- •AWS Cloud Foundations AWS Academy

TRAINING

Trainee Data Scientist 07/2021 – 09/2021

Nawah.ai

- Applied machine learning/DL concepts such as feature engineering, modeling, and model evaluation & testing.
- Deployed machine learning projects as web apps using Streamlit.

LANGUAGES

• Arabic: Native • English: Very Good