Assem Maher Salama

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EDUCATION

Cape Breton University-CBU	Nova Scotia-Canada
Canadian International College-CIC	Cairo-Egypt
Bachelor of Electronics and Communications Engineering	(Oct 2016 - May 2021)

- Cumulative GPA: 3.1/4.0
- Relevant Coursework: Statistics, Probability & Discrete Mathematics
- Graduation project: We did a hardware implementation of 2X2 MIMO-OFDM system on USRP using LabVIEW.

PROFESSIONAL EXPERIENCE

Vodafone Egypt
IP Datacom Network Engineer   (September 2023 - present)
- Resolving access policy issues for remote teams, guaranteeing uninterrupted server access.
- Monitoring and responding to network alarms on Vodafone's nodes (routers, switches, and firewalls), ensuring network permanence.
- Deploying configuration scripts to enforce access policies for Vodafone teams, enhancing network security.

Transmission Front Office Engineer   (March 2023 - August 2023)
- Provided Support in the TX access and BH area.
- Conducted troubleshooting, analysis, and solutions for sites (2G, 3G & 4G) problems.
- Ensured proper and timely handling of individual/ global incidents related to transmission domain.

SKILLS

- **Programming Languages:** Python
- **Big Data & Machine Learning:** SQL, MongoDB, Python (e.g., scikit-learn, NumPy, pandas, matplotlib),
  ML techniques: Regression, Classification and Clustering.
- **Data Science & Miscellaneous Technologies:** A/B testing, ETL, Data science pipeline (cleansing, wrangling, visualization, modeling, interpretation), Statistics, Time series, Experimental design, Hypothesis testing, OOP, APIs.

SELECTED PROJECTS

VOLATILITY FORECASTING IN INDIA
- We created a GARCH time series model to predict assets volatility. We acquired stock data through an API, clean and store it in a SQLite database, and built my own API to serve model predictions.

A/B TESTING AT WORLDQUANT UNIVERSITY
- Here we conducted a chi-square test to determine if sending an email can increase program enrollment at WQU. We built custom Python classes to implement an ETL process and created an interactive data application following a three-tiered design pattern.

CUSTOMER SEGMENTATION IN THE US
- In this project we built a k-means model to cluster US consumers into groups. We used principal component analysis (PCA) for data visualization and created an interactive dashboard with Plotly Dash.

BANKRUPTCY IN POLAND
- This project was all about building random forest and gradient boosting models to predict whether a company will go bankrupt. We navigated the Linux command line, addressed imbalanced data through resampling, and considered the impact of performance metrics precision and recall.

EARTHQUAKE DAMAGE IN NEPAL
- This one was about building logistic regression and decision tree models to predict earthquake damage to buildings. it involved extracting data from SQLite database, and revealing the biases in data that can lead to discrimination.

AIR QUALITY IN NAIROBI
- In this project I built an ARMA time-series model to predict particulate matter levels in Kenya. I extracted data from a MongoDB database using pymongo, and improved model performance through hyperparameter tuning.

SUPPLY CHAIN OPERATION AT FAASOS
- We analyzed past order data for a food delivery service using SQL to answer business questions, including average pickup time for drivers at stores and identifying orders with both exclusions and extras for better inventory management.