# Assem Maher Salama
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## EDUCATION

**Queen's University**                                                                                  Ontario-Canada
Master of Science – MS, Data Science and Artificial Intelligence                          (Jan 2024 - Dec2024)
- Grade: 4.1/4.3
- Thesis: Analyzing the Impact of Prompts on LLM-Driven Code Translation Using Causal Inference
- Relevant Courses: Machine Learning, Deep Learning, Reinforcement Learning, Big Data & Cloud Computing, Data Mining, Data Analytics

**Canadian International College-CIC || Cape Breton University**                          Cairo-Egypt
Bachelor of Electronics and Communications Engineering                                   (Oct 2016 - May 2021)
- Grade: 3.1/4.0
- Relevant Coursework: Statistics, Probability, Discrete Mathematics
- Graduation Project: Implemented a 2x2 MIMO-OFDM system using USRP and LabVIEW

## PROFESSIONAL EXPERIENCE

**Vodafone Egypt**
AI and Automation Engineer                                                                   (Sept 2025 - present)
- Design, build, and test software using data engineering methods to meet customer needs.
- Collaborate with teams to resolve complex application and system issues Troubleshoot, rectify issues, and provide regular progress updates.
- Integrate diverse data sources for analysis, monitoring, and alerting.
- Create, manage, and optimize complex queries using SPL.
- Design and implement dashboards, visualizations, and reports to provide real-time insights.
- Troubleshoot data ingestion and connectivity issues.

IP Datacom Network Engineer                                                              (Sept 2023 - August 2025)
- Resolved access policy issues for remote teams, ensuring seamless server connectivity.
- Monitored and troubleshot network alarms on routers, switches, and firewalls to maintain up time.
- Deployed configuration scripts to enforce access policies and enhance network security.

Transmission Front Office Engineer                                                       (March 2023 - August 2023)
- Provided technical support for TX access and backhaul (BH) operations across 2G/3G/4G sites.
- Diagnosed and resolved transmission-related incidents, to reduce downtime.
- Coordinated with cross-functional teams to address global network outages within SLA timelines.

## PROJECTS

**Volatility Forecasting in India**
- Developed a GARCH time-series model to predict asset volatility; integrated SQLite for data storage and built a custom API for predictions.

**A/B Testing for Program Enrollment**
- Executed chi-square testing to evaluate email campaign effectiveness; designed Python ETL pipelines and an interactive data app.

**Customer Segmentation in the US**
- Implemented k-means clustering and PCA for consumer segmentation; deployed an interactive dashboard using Plotly Dash.

**Supply Chain Analysis for Faasos**
- Conducted SQL-driven analysis for delivery company of order data to optimize driver pickup times and inventory management.

## SKILLS

**Programming**: Python (scikit-learn, NumPy, pandas, matplotlib), OOP, Design pattern
**Big Data**: SQL, MongoDB, Spark, Kafka
**Machine Learning**: Regression, Classification, Clustering, Dimensionality Reduction, Anomaly Detection
**Data Science Techniques**: A/B Testing, ETL, Data Cleaning, Feature Engineering, Hypothesis Testing
**Time Series Analysis**: ARMA, GARCH, Forecasting Models
**Software Tools:** Linux, Git, Plotly Dash, APIs