

OMAR AHMED ELSAYED

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PROFESSIONAL SUMMARY

Results-oriented **Data Engineer** with production experience in **Snowflake**, **dbt**, and **LLM** integration. Proven track record of architecting high-volume extraction pipelines processing **hundreds of GBs** of unstructured data weekly. Active **Open Source Contributor** to AI tools (Wren AI). Skilled in modernizing legacy infrastructure and building real-time analytics dashboards. Winner of the **Arab AI & IoT Challenge** and exhibited at **GITEX Global**.

TECHNICAL SKILLS

Data Engineering: dbt, Snowflake, Web Scraping, ELT/ETL, Blob Storage
AI & LLMs: LLM Ops, Vector Databases, RAG (Retrieval-Augmented Generation), Wren AI (Text-to-SQL)
Languages: Python (Advanced - Pandas/NumPy), SQL, Golang, Bash/Scripting
Cloud & Tools: AWS, Azure, Git, Docker, Linux, CI/CD
Frontend & Visualization: Expo (React Native), Streamlit, PowerBI

EDUCATION & CERTIFICATIONS

Arab Academy for Science, Technology and Maritime Transport Cairo, Egypt
B.Sc. Computer Engineering Sep. 2020 – May 2025
Certifications:
• **ALX Data Science** (ExploreAI) – [Certificate](#)
• **NVIDIA DLI:** Fundamentals of Deep Learning – [Certificate](#)
• **Udacity:** Machine Learning Cross-Skilling Nanodegree – [Certificate](#)

PROFESSIONAL EXPERIENCE

Data Engineer I Sep 2024 – Present
Raisa Energy Cairo, Egypt
• **High-Volume Data Pipelines:** Architected and deployed scalable extraction pipelines for APIs, websites, and emails, processing **hundreds of gigabytes** of unstructured data weekly into **Blob Storage** and **Snowflake**
• **dbt Optimization:** Engineered custom dbt incremental strategies and materializations, reducing pipeline build times by **70%** and optimizing cloud operational costs
• **CI/CD:** Architected end-to-end CI/CD workflows for dbt projects, establishing automated testing gates and deployment pipelines
• **Natural Language to SQL Insights:** Developed a Question-Answering application using SQL-based RAG to query databases via natural language, bridging the gap between non-technical stakeholders and complex datasets
• **Documentation:** Authored technical documentation and internal best practices for CI pipeline implementation
Data Engineering Intern Jul 2024 – Sep 2024
Raisa Energy Cairo, Egypt
• **Infrastructure:** Spearheaded legacy infrastructure modernization, driving critical platform updates that significantly improved system reliability and performance
• **Analytics:** Designed and optimized complex data models to power mission-critical Power BI analytics dashboards
Technical Support Subject Matter Expert Jun 2023 – Dec 2023
Teleperformance Egypt Cairo, Egypt
• Mentored new agents on technical protocols and data security compliance, ensuring high service standards

OPEN SOURCE & PROJECTS

Open Source Contribution: Wren AI (Text-to-SQL Engine) | Contributor
• Collaborated with the core engineering team to identify and resolve critical bugs in the open-source **Wren AI** engine; successfully pushed and merged Pull Requests (PRs) to fix backend issues
AIoT Smart Shopping Cart (Graduation Project) | Data Visualization & Frontend Engineer
• **Awards:** Winner of **Arab AI & IoT Challenge & EGAIOT**; **2nd Place** at AUC Hackathon; Exhibited at **GITEX Global**
• Partnered with **Spinneys** and **Quanttronix** to pilot a smart retail system
• Developed the **Real-Time Analytics Dashboard** and consumer mobile app using **Expo (React Native)**, implementing real-time data synchronization via **MQTT**
Intelligent Maze Agent (Dell Hacktrick Hackathon) | Machine Learning Engineer Mar 2023
• Ranked in **top 10 of 200+ teams**; developed a Deep Q-Network (DQN) agent using **TensorFlow** and **PyTorch** deployed on **AWS EC2**

VOLUNTEERING & LEADERSHIP

Technical Instructor & Lecturer Sep 2022 – Present
IEEE AAST Cairo Student Branch Cairo, Egypt
• Designed and conducted **Python programming workshops**, mentoring **100+ students** in core coding concepts and debugging
• Led technical R&D sessions, breaking down complex technical topics for diverse audiences