Omar Essam El-Din Mohamed

Zahraa El Maadi, Cairo, Egypt

📞 +20 1004819774 ✉ eng.omar.e@gmail.com 🔗 LinkedIn ⚙ GitHub

PROFESSIONAL SUMMARY

A results-driven Project Management Information Systems (PMIS) Engineer with 10+ years of experience spanning construction, civil engineering, and data engineering.

EDUCATION

Cairo University, Bachelor of Science in Civil Engineering, May 2013
Overall Grade: Good (C)
Project Grade: Excellent (A)
Graduation Project: Steel Bridges Design
Orouba Language School
Graduation Score: 98.9% (405.5/410)

PROFESSIONAL EXPERIENCE

Programming and Data Engineering Experience

- **Data Engineer Lead (AI & Automation)** — Rowad Modern Engineering (Aug 2024 – Present)
  - Led development of an internal NLP system using LLMs (GPT/Mistral) to summarize and draft replies to executive emails automatically
  - Designed and deployed an automated cash-in notification system integrated with financial data pipelines
  - Built a secure internal web UI to query and interact with MySQL, PostgreSQL, and MongoDB databases across projects
  - Expanded data engineering scope into applied AI/ML, handling both backend data processing and frontend user interaction
  - Coordinated across departments to scale automation tools, boosting productivity in HR, Finance, and PMO workflows

- **IT Networking / Data Engineer** — Rowad Modern Engineering (Jan 2023 – Present)
  - Maintained MySQL databases on Linux Servers, ensuring seamless data access and storage

- **Data Scientist** — Rowad Modern Engineering (Mar 2024 – Jul 2024)
  - Developed machine learning models for cash flow predictions

- **Senior Data Engineer** — Rowad Modern Engineering (Apr 2023 – Dec 2023)
  - Automated repetitive tasks using Python, saving significant resource hours

Construction and Civil Engineering Experience

- **Project Control Section Head** — Rowad Modern Engineering (Sep 2021 – May 2023)
  - Managed the project control team for bridge projects
  - Streamlined cost and schedule reporting processes
  - Enhanced coordination between construction and planning teams

- **Senior Project Control Engineer** — Rowad Modern Engineering (Jan 2019 – Aug 2021)
  - Oversaw multiple project schedules and cost control measures
  - Delivered periodic project performance reports to stakeholders

- **Project Control Engineer** — Rowad Modern Engineering (Apr 2018 – Dec 2018)
    - Worked on major infrastructure projects including Nefisha Bridge and El Sokhna Tunnel
- **Tendering Engineer** — Rowad Modern Engineering (Jan 2018 – Mar 2018)
    - Evaluated project tenders for technical and financial feasibility
- **Planning/Cost Control Engineer** — Concrete Plus (Apr 2015 – Jan 2018)
    - Coordinated cost control for multiple projects from the head office
- **Site Engineer** — Concrete Plus (Apr 2014 – Mar 2015)
    - Supervised on-site construction activities, ensuring compliance with design specifications

TECHNICAL PROJECTS

Data Engineering Pipeline

- Developed automated data pipelines for cash flow analysis using Apache Airflow
- Implemented real-time messaging integration with Teams and WhatsApp
- Built custom ETL processes for financial data processing

Django Enterprise Warehouse System

- Developed a comprehensive Django-based warehouse management system with multiple modules
- Implemented Purchase Order tracking, Cost Distribution, and Accounts Payable modules
- Integrated with MS SQL Server for robust data storage and retrieval
- Built a modular architecture supporting HR, Finance, and Operations workflows

Machine Learning Projects

- Created stock price prediction models using time series analysis
- Developed rainfall prediction model for construction planning
- Implemented CDL (Construction Data Library) model for project analytics

KEY SKILLS

Technical Skills

- **Data Engineering:** ETL pipelines, Airflow, Spark, ERP systems, Docker
- **Data Visualization:** Power BI, Looker, Tableau, Python visualization libraries
- **Programming:** Python (Django, FastAPI), SQL, Java, R, C++, C# (familiar)

Domain Expertise

- **Engineering Tools:** Primavera P6, MS Project, Synchro, Revit, Navisworks, AutoCAD
- **Construction:** Cost Control, Tender Evaluation, Risk Management
- **Languages:** Arabic (Native), English (Fluent)

CERTIFICATIONS

- Certified Data Scientist Professional (Epsilon AI)
- Primavera P6
- Python Programming
- PMP Certification
- CCNA and CCNP Networking
- Steel Bridges Design

PERSONAL PROJECTS

- Guitarist in an Iron Maiden cover band
- Created a music YouTube channel with over 100,000 subscribers
- Co-created the social media group ESS
- Co-hosted a political podcast
- Wrote two sci-fi novels
- Worked in the rescue of street cats and dogs in Maadi