

YOUSUF MAHMOUD

Data Engineer

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Professional Summary

Result-oriented Data Engineer with a strong background in Computer Science and Data Architecture. Proven experience in designing scalable ETL/ELT pipelines, data warehousing solutions, and automating complex data workflows. Adept at transforming raw data into actionable insights through rigorous data processing and optimization. Eager to leverage technical expertise in a challenging Data Engineering role.

Internships

Information Technology Institute (ITI)

Data Engineering Intern

Minya, Egypt

June 2025 – Nov 2025

- **Project: Hollywood in the Cloud** | AWS (Lambda, Glue, Athena, S3), Power BI [GitHub]
 - Built a Serverless Pipeline to ingest 100+ years of movie data via AWS Lambda, reducing runtime by **40%**.
 - Automated ETL processes with AWS Glue and enabled SQL-based analysis on S3 data via Amazon Athena.
 - Visualized insights identifying Q4 as the peak release window using Power BI.
- **Project: Olist E-commerce ELT Pipeline** | Snowflake, Airflow, dbt, Docker [GitHub]
 - Architected an ELT pipeline processing 100K+ records via Medallion Architecture (Bronze, Silver, Gold).
 - Orchestrated daily workflows via Airflow and implemented dbt tests, ensuring **99.9%** data consistency.
- **Project: ITI Examination System** | SQL Server, T-SQL, SSMS, Docker [GitHub]
 - Engineered a normalized database with complex Stored Procedures, optimizing query performance by **50%**.
 - Established a secure RBAC system and created Audit Triggers for data integrity.

Instant Software Solutions

AI Engineer Intern

Hybrid

May 2025

- Developed 6 AI/ML projects including recommendation systems, sentiment analysis, chatbots, and emotion recognition using NLP, Computer Vision, and optimization algorithms (ALS, SVD).

Technical Skills

Programming Languages: Python (Advanced), SQL, Bash, Java, C++

Data Engineering: Apache Airflow, Apache Spark, Hadoop, Kafka, dbt, Snowflake

Python Libraries: Pandas, NumPy, Scikit-learn

Cloud & DevOps: AWS (Lambda, Glue, Athena, S3, EMR, Redshift, EC2), Docker, Linux, Git/GitHub, Jenkins

Databases: SQL Server, PostgreSQL, MongoDB

Visualization & ML: Power BI, Matplotlib, NLP, Computer Vision, TensorFlow

Soft Skills: Problem Solving, Agile Project Management, Critical Thinking

Education

Beni-Suef University

Bachelor of Computer Science

Beni-Suef, Egypt

2020 – 2024

- **Graduation Project: Skin Cancer Detection (Grade: A+)**

Spearheaded an AI healthcare platform for skin cancer detection using CNNs, achieving **96%** classification accuracy. Built a patient ecosystem with drug reminders and chat modules.

Certifications & Training

AWS Academy Graduate - Data Engineering & Cloud Foundations

2025

Artificial Intelligence Diploma (170 Hours)

2024

Fundamentals of Agile Project Management

2022

Technical Courses (Udemy): Apache Spark (Frank Kane), Docker for DevOps (Mumshad Mannambeth), MongoDB (Maximilian), Modern Data Warehouse (Baraa Salkini)

Languages

Arabic: Native

English: Advanced