# Mahmoud Mamdoh Soliman Data Engineer

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#### **SUMMARY**

Data Engineer focused on transforming data into actionable insights that drive strategic decisions and accelerate business growth. Skilled in designing and optimizing complex data pipelines and workflows using modern data stacks to improve operational efficiency and scalability. Collaborative and impact-driven.

# **EXPERIENCE**

# Business Intelligence Analyst Cairo, Egypt

Jul 2024 - Oct 2024

Addiction Treatment Center | Internship

Designed and developed Power BI dashboards to monitor customer satisfaction

## Data Analysis (Professional Internship) October, Cairo

Nov 2023 - Jan 2024

ASDC | Internship

• Created an interactive dashboard using Power BI to visualize key business metrics.

## **BOOTCAMPS & SPECIALIZED TRAINING**

## **Data Engineering Zoomcamp**

Jan 2025 - May 2025

DataTalks Club

- Hands-on program covering data ingestion, orchestration (Airflow), transformation (dbt), Docker, and cloud (GCP).
- Built a real-world ELT project using the Medallion Architecture and modern data stack tools.

## **Business Intelligence Track**

Jul 2023 - Aug 2023

Information Technology Institute (ITI)

- Gained experience in data modeling, ETL pipelines, and Power BI dashboard development.
- Focused on building data warehouse solutions and business analytics using Microsoft stack and open tools.

## **PROJECT**

#### **Telecom Streaming Pipeline**

May 2025

Kafka, HDFS, Spark, Snowflake, dbt, Docker, Airflow, Python, Power BI

- Built a near real-time streaming data pipeline to ingest telecom events (calls, SMS) via Kafka and HDFS.
- Processed data using Spark and stored cleaned outputs in Snowflake, following the Medallion Architecture.
- Orchestrated the pipeline using Apache Airflow.
- Designed and implemented dbt models with SCD Type 2 logic for dimensional modeling.
- Built Power BI dashboards to visualize user activity, cell site performance, and regional trends.

ELT-Engine Mar 2025

SQL, dbt, Snowflake, Docker, Apache Airflow, Python, Power BI

- Built an ELT pipeline using Airflow for orchestration and dbt for transformations in Snowflake.
- Designed and implemented a Medallion Architecture (Bronze, Silver, Gold) to optimize data processing for analytics.
- Developed interactive Power BI dashboards to visualize key business insights .

#### E2E-ELT-Data-Pipeline

SQL, Python, DBT, Apache Airflow, PostgreSQL, Power bi

- Engineered data-aware ELT pipeline using Apache Airflow, Python, dbt
- Developed Power BI dashboards for interactive data visualization and insights

## **OLAP Dimensional Modeling for Advanced Analytics**

Python, SQL, Docker, Apache Airflow, Postgres

- Designed and implemented an ETL pipeline with Airflow for data orchestration and Docker for containerization.
- Designed customized visualizations to track key business metrics.

## ETL-&-Building-DWH-&-Data-Analysis-(NorthWind)

SSIS, SSAS, SQL Server, Power bi

- Built an end-to-end data pipeline using Apache Airflow, PostgreSQL, and Docker following the Medallion architecture (Bronze → Silver → Gold).
- Developed ETL workflows to clean, transform, and load sales, customer, store, and product data into a star schema with SCD Type 2 logic.

## **SKILLS**

Programming Languages (Python, SQL, Spark, C#), Orchestration (Apache Airflow, Mage), ETL & ELT (dbt, SSIS), Big Data Technologies (Hadoop, Hive), Data Streaming (Kafka), Data Warehousing (Snowflake, Dimension Modeling, Medallion Architecture), Databases (PostgreSQL, MySQL, MS SQL), Containerization (Docker), Version Control (Git, GitHub), Operating Systems (Linux, Windows), Data Validation (Data Quality Checks, Schema Validation)

# **EDUCATION**

Menofia University, Computer Science and Mathematics Bachelor

Menofia, Egypt, 2021 – 2025

# **CERTIFICATES**

DATA ENGINEERING ZOOMCAMP (4-2025) Business Intelligence train ITI (7-2023) Data Engineering Foundations IBM (11-2023) Data Engineer Datacamp (10-2023) Google Business Intelligence (5-2023)