Mohamed Ahmed

Data Engineer

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Education

• Bachelor's degree in computer science, Faculty of Electronic Engineering/ Menoufia University.   2017 – 2022
• Department: Computer Science (Grade: Good)

Experience

NTI Big Data Track Internship   07/2024 – 10/2024
Ministry of Communications (MCIT) in collaboration with **Huawei** company.
• Comprehensive training covering Linux, Python, Big Data concepts, Hadoop Cluster and Spark.
• Focused on enhancing skills in Data warehousing and Data Modeling.

Projects

Stock Market Price Analysis using PySpark & SQL on Databricks 🔗
• Developed a **big data pipeline** to analyze large-scale stock market data using **Apache Spark** and **SQL** on **Databricks**. Designed and optimized **ETL**, leveraged **PySpark DataFrames** and **SQL** queries for data transformation, and applied **window functions** and **aggregations** to extract insights on stock volatility, pricing trends, and trading volumes.

Store Data warehouse project. 🔗
• Designed and implemented a star schema data warehouse in SQL Server, integrating **SSIS** for ETL. Restored source files (AdventureWorks DB), created Fact and Dimension tables with **SCD** attributes, and built SSIS packages for data loading and auditing. Developed a **Power BI** dashboard to provide business insights.

Big data project using EMR (Spark). 🔗
• Designed and implemented data pipeline on huge amount of data using **AWS EMR**.
• Save the raw data on S3 buckets and use Jupiter notebook to write a **PySpark** code to do transformation on data.
• Store the transformed data into **s3** bucket.

Spotify Data Pipeline 🔗
• Designed a Spotify data pipeline using **AWS Glue**, S3, and Athena.
• Setting up S3 buckets for source and destination.
• Cataloging the data with AWS Glue Crawler. Utilized AWS Athena for querying and analyzing data.

ETL-Telecom-Company 🔗
• Develop and Build an **ETL** pipeline built for a telecom company using SSIS.
• Extract data from CSV file and apply some transformation on data.
• Then, load data into a **SQL** Server database for reporting and analysis.

Skills

• Python	• SQL Server DB	• Data warehouse	• ETL/SSIS
• Big Data Concept	• Spark/pyspark	• Hadoop cluster	• AWS EMR
• AWS Glue	• Data Pipeline	• Data Modeling	• Apache Airflow
• Linux	• Data Lakes Concepts	• Data Visualization	• Power BI

Certificates

AWS Cloud Practitioner 🔗
Certified in AWS Cloud Practitioner, gaining foundational knowledge of AWS services, cloud computing principles.

Languages

• Arabic   • English