Ahmed L. Rashed

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Professional Summary

Detail-oriented Data Professional with over 15 years of experience in business intelligence gathering, trending, benchmarking, and building robust applications. Team-player who loves breaking down problems, building solutions, delivering actionable and data-driven insights, and working in a fast-paced, dynamic environment.

Technical Skills

- SQL (SQL Server, MySQL, PostgreSQL)
- Data Visualization (Tableau, Power BI)
- Azure Data Factory & Databricks
- Python programming
- Statistical Analysis
- Predictive Modelling
- Data Cleaning / Preprocessing
- Report Writing/Presentation
- Machine Learning techniques

Education & Certification

Google Advanced Data Analytics Certificate
Master of Arts – *Physics* - Bryn Mawr College

Microsoft Certified: Azure Data Fundamentals
Bachelor of Science - *Applied Physics* - UMBC

Work Experience

SQL Analytics Consultant GLOBALSTAR Covington, LA 02/2024 – 04/2024

Leveraged SQL queries to analyze production test data to identify inefficiencies and automate deployments.

- Optimized MySQL production queries, reducing run-times from ~ 50 minutes to ~ 5 minutes.
- Revamped manufacturing Power BI dashboards to automatically clean incoming data and KPI metrics.

Tableau Developer Consultant LIFTEDVIZ Bellevue, WA 12/2023 - 01/2024

Explored and visualized COVID's most affected countries, highest death rates, and fastest vaccination rates with new interns to teach best practices and tips in SQL data cleansing and Tableau dashboard creation.

- **Tools Used:** Azure Data Studio, SQL Server Management Studio (SSMS), Tableau, GitHub.
- **Results:** Published visualization to Tableau Public *LINK*.

Data Analytics Consultant HENNY PENNY Eaton, OH 12/2022 – 08/2023

Extracted and analyzed three-years-worth of operational data to uncover trends and inefficiencies. Created python utility to extract and transform data from TestStand SQL database schema into flat CSV files.

- **Tools Used:** SQL Server Management Studio (SSMS), Python, PYODBC, Pandas, GitHub.
- **Results:** Reduced script to a single, stand-alone executable file for users to download.

BI Developer Consultant GRANVILLE PHILLIPS Broomfield, CO 09/2022 - 01/2023

Setup and verified new data analysis system into existing stations, resulting in a 20% increase in data accuracy.

- Performed exploratory SQL analysis to identify patterns in ion-gauge board test telemetry data, translating the complex data-driven analysis into easy-to-understand reports using Power BI.

Principal Analytics Engineer MKS INSTRUMENTS Methuen, MA 03/2021 - 06/2022

Managed test station software projects, ensuring quality and reliability of software through comprehensive regression testing and streamlined reporting processes.

- Created visually impactful Tableau dashboards and executive data visualizations to track production yields and failure modes, saving test engineers over 10 hours weekly in diagnostics and manual reporting.
- Extracted manufacturing data using Python, SQL, and Excel for monthly quality reports, preventing over $50,000 in lost annual revenue by catching product quality defects BEFORE they leave the factory floor.

Process Analytics Engineer MKS INSTRUMENTS Methuen, MA 03/2011 - 06/2022

Incorporated extensive upgrading and overhauling legacy product lines. Rewrote test software architecture into robust, data-driven, user-friendly applications, improving quality, reliability, and efficiency.

- Connected Tableau dashboards to centralized data-pipeline for real-time production data tracking, improving average time-to-bug-fixes by 20% and highlighting time-sinks in factory workflows.
- Built statistical analysis models on large data sets using Azure Data Studio, reducing product rework and post-processing test-time by 15%.

Test Engineer MKS INSTRUMENTS Methuen, MA 06/2008 - 08/2011

Sustained production by creating and updating test software, troubleshooting test stand issues and malfunctions. Maintained test software to ensure the quality of products, resolving stand problems to keep production moving.

- Cleaned, transformed, and prepared data for visualization, ensuring accuracy, consistency, and relevancy.
- Standardized data collection and storage, deconstructing data silos and enabling seamless data sharing across departments, improving pressure sensor and flow meter production yield from 88% to 95%.

Freelance Projects

Customer Retention DAX Report: *CRD GitHub Link* 04/2024

Dashboard report with legacy customer and sales data to calculate customer retention and overall sales metrics.

- **Tools Used:** Azure Data Studio, T-SQL, Power-Query, Power BI, DAX.
- **Approach:** Cleaned and sliced regional sales dataset with SQL. Imported and preprocessed data with Power Query. Created DAX measures to calculate rolling 90-day and 3-month repeat customer counts.

End-to-End Azure Pipeline: *E2E GitHub Link* 02/2024

Azure ETL Pipeline for retrieving and processing NI TestStand test results, featuring Azure Data Lake for storage, Databricks Spark SQL/Python for transformations, and Power BI as the final visualization of factory metrics.

- **Tools Used:** SQL Server Migration Assistant (SSMA), Azure Data Factory, Databricks, Synapse, Power BI.
- **Approach:** Migrate NI TestStand results to local SQL Server. Replicate in Azure SQL Server. Ingest with Azure Data Factory. Process and Transform with Databricks. Process with Synapse. Display with Power BI.

TikTok Video Classification: *TVC GitHub Link* 12/2023

Built and optimized a predictive logistic model to classify TikTok videos as claim vs opinion.

- **Tools Used:** Jupyter Notebook, Pandas, Pathlib, Matplotlib, Seaborn, Scikit-learn, Statsmodels.
- **Results:** Both RandomForest and XGBoost architectures provided near-perfect models, but RandomForest had higher accuracy and less processing. The most predictive features were related to video engagements.

Housing Prediction Model: *HPM GitHub Link* 10/2023

Built and optimized a predictive regression model of housing prices with historical CA housing data.

- **Tools Used:** Jupyter Notebook, Pandas, Pathlib, Matplotlib, Seaborn, Scikit-learn.
- **Results:** Evaluated RandomForest Regression as the best overall model to predict median-house-value.