AHMED LOTFY RASHED

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SUMMARY

- Senior BI Engineer/Developer with over 15 years of expertise in designing and optimizing business intelligence solutions for manufacturing and operations.
- Strong proficiency in SQL programming, query writing, query performance tuning, database technologies, ETL, requirements gathering, and dashboard/report development.
- Excellent collaboration skills, working with both technical and business teams to deliver robust solutions, process improvements, and operational efficiency.

TOOLS & SKILLS

Data Analytics: EDA, SQL, Python, Tableau, Power BI (PowerQuery, DAX), MicroStrategy Workstation | Developer.
Data Engineering: ETL, MySQL, SQL Server, Azure Data Studio | Data Factory | Databricks | Synapse.
Business Intelligence: Collaboration, Requirements Gathering, Root-Cause Analysis, Process Improvement/Execution.
Project Management: MS Project, Agile, Kanban, Scrum, JIRA, Confluence, Azure DevOps, BitBucket, Git.

EDUCATION & CERTIFICATIONS

- MicroStrategy Certified: Project Architect
- MicroStrategy Certified: Enterprise Analyst
- Microsoft Certified: Azure Data Engineer Associate
- Microsoft Certified: Azure Data Fundamentals
- Master of Arts - Physics - Bryn Mawr College - 2004
- Bachelor of Science - Applied Physics - University of Maryland Baltimore County - 1999

WORK HISTORY

Sherwin Williams - Cleveland, OH
Senior BI Developer
06/2024 – Present
Designed and deployed patches for Tableau and MicroStrategy reports, enhancing system performance.

- Developed and enhanced enterprise MicroStrategy dashboards, improving quality and efficiency.
- Built, updated, and maintained schema objects and data models for evolving enterprise assets.
- Manual QA tested data migration from Netezza to Snowflake for data integrity and reliability.
- Bridged technical and business teams, translating requirements into robust BI solutions.

Globalstar - Covington, LA
Test Analytics Engineer
02/2024 – 04/2024
Developed, debugged, and automated TestStand production test deployments and database connectors.

- Migrated NI TestStand results to MySQL Server. Replicated in Azure SQL Server. Ingested with Azure Data Factory. Processed and Transformed with Databricks. Processed with Synapse. Displayed with Power BI.
- Optimized MySQL queries with python scripting, reducing run-times from 50 minutes to 5, boosting efficiency.
- Collaborated with data engineers to migrate databases to AWS cloud, ensuring a seamless transition.

Henny Penny - Eaton, OH
Test Analytics Developer
12/2022 – 08/2023
Wrote and maintained test code for LabVIEW drivers and TestStand systems for reliability and efficiency.

- Extracted and analyzed three-years-worth of PCB operational data to uncover trends.
- Wrote python scripts to streamline data extraction from TestStand SQL database, enhancing accessibility for end-users through a standalone executable.
  - *https://github.com/ahmedlrashed/teststand-kpi-dashboard*
- Implemented Statistical-Process-Control dashboards, significantly boosting production KPI-tracking and first-pass yields for enhanced operational efficiency.
  - *https://github.com/ahmedlrashed/teststand-database-utility*

Granville Phillips - Broomfield, CO
Automated Test Developer
09/2022 - 01/2023
Added EtherCAT communication to the 352 Ion Guage PCB board/final test stands using LabVIEW Object Oriented Programming (OOP); doubling test stand capacity & improving pass-fail rate from 75% to 95%.
- Conducted in-depth SQL analysis of ion-gauge PCB telemetry data, translating complex test data into actionable Tableau reports.
- Developed python scripts to validate data collection/analysis system, boosting accuracy by 20%.

MKS Instruments - Methuen, MA
Principal Test Engineer
03/2021 - 06/2022
Managed test station software projects, overseeing quality and reliability of software through comprehensive regression testing and streamlined reporting processes.
- Managed LabVIEW projects for PCB test stations: mentoring junior developers, chairing code reviews.
- Standardized JIRA scrum and kanban workflows and trained coworkers on how to use these workflows.
- Picked up SQL and Python on-the-job to drive enhanced data visualizations for TechOps & Business Unit teams, preventing ~ $50,000 in lost annual revenue by catching defects before they leave the factory floor.
- Created visually impactful dashboards and executive data visualizations in Tableau to track production yields and failure modes, saving test engineers over 10 hours weekly in diagnostics and manual reporting.
- Led the development and rollout of internal real-time Statistical Process Control system to the production floor, including Xbar & R Charts, Gage R&R reports, and Cpk and KPI metrics.

Senior Test Engineer
09/2011 - 02/2022
Incorporated extensive upgrading and overhauling legacy product lines. Rewrote LabVIEW test software architecture into robust, data-driven, user-friendly applications, improving quality, reliability, and efficiency.
- Integrated Tableau dashboards with data-pipeline, revolutionizing bug-fix processes and illuminating workflow bottlenecks for strategic improvements.
- Developed LabVIEW web service drivers to connect various product lines to custom database (Visual Factory), allowing engineers and line operators to catch process issues in hours rather than days.
- Sustaining production by resolving issues on the floor. Regularly performed Kaizen blitz and FMEA analysis to find root causes of test failures, implementing short- and long-term solutions.
- Skills Used: Business Intelligence (BI), Agile Methodologies, Data Mining, Data Cleaning, Data Visualization, Statistical Data Analysis, Extract, Transform, Load (ETL), Tableau, Software Development Analytics, Ad Hoc Analysis, Business Analysis, Test Automation, Statistics, Agile Project Management

Software Test Engineer
06/2008 - 08/2011
Maintained test software to ensure the quality of products, resolving stand problems to keep production moving. Creating, troubleshooting, and updating LabVIEW test software as needed.
- Cleaned, transformed, and prepared data for accurate, consistent, and relevant visualizations.
- 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 - 04/2024
https://github.com/ahmedlrashed/customer-retention-dax-report
Extracted and transformed data using Power Query. Created time-intelligence DAX measures to calculate rolling 90-day and 3-month repeat customer dashboard.

End-to-End Azure Pipeline – 02/2024
https://github.com/ahmedlrashed/E2E-Azure-Pipeline
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.

SQL-Tableau EDA - 09/2023
https://github.com/ahmedlrashed/COVID-Retrospective-EDA
Explored and visualized COVID's most affected countries, highest death rates, and fastest vaccination rates using Azure Data Studio, Jupyter Notebook, SQL, and Tableau.