**Mohammed**

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**Senior Data Analyst/Power Bi developer**

**Professional Summary:**

Highly skilled Senior Data Analyst and Data Engineer with over a 10+ Years of experience in crafting data-driven solutions across various sectors, including Manufacturing, Retail, and Sales. Demonstrated proficiency in Power BI, SQL, Python, Azure, and Tableau for developing predictive models, designing data pipelines, and enhancing performance. Experienced in working with cross-functional teams to provide insights that boost operational efficiency, improve product quality, and support informed business decisions. Expertise in data visualization, ETL processes, and cloud technologies like Azure Data Factory and Snowflake. A proactive problem-solver with a history of spearheading data initiatives that enhance productivity, lower costs, and streamline operations.

**Key Highlights**

* Created interactive Power BI dashboards and Tableau visualizations to deliver real-time insights and support business decision-making for production, retail, and sales functions.
* Developed predictive models using Python to anticipate equipment failures, product demand, and customer churn, leading to significant gains in operational efficiency and customer retention.
* Oversaw the design and implementation of Azure Data Factory pipelines and SSIS packages for smooth data integration across various systems, ensuring efficient data flow.
* Established ETL processes to transform and load data into centralized data warehouses from diverse sources, enhancing data availability and quality.
* Performed data profiling, root cause analysis, and statistical process control (SPC) to elevate product quality by 10% and minimize defects in manufacturing processes.
* Refined SQL queries, stored procedures, and indexes to boost the performance of high-volume data processing tasks, resulting in quicker query execution and improved data retrieval times.
* Merged real-time data from IoT sensors and e-commerce platforms into centralized databases and Dataverse, facilitating immediate decision-making and cohesive reporting across channels.

**Technical Skills:**

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| **Databases & Database Tools** | MS & SQL servers 2000/2005/2008, Oracle 9i/10g/11g, MS Access 2003/2007/2010, Teradata, My SQL. |
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| **Data Modeling Tools** | Erwin 7.1/7.2/7.3, System Architect 11.3, MS Visio 2000/2007/2010, ER/Studio, Power Designer 11.0/12.0/12.5/15. |
| **Reporting Tools** | Cognos 8.3/8.4, Cognos Report Studio, Cognos Analysis Studio, Cognos Framework, MicroStrategy. |
| **ETL Tools & Others** | Informatica Power Center 8.x, Tools Include Source Analyzer, Target Designer, Mapping Designer, Workflow Manager, MS Office, Rational Requisite Pro, SharePoint. |
| **Languages** | MY SQL, PL/SQL, SQL. |
| **Operating Systems** | Linux, Unix, DOS, Win Server 2003/2008, WIN 98/NT4/0/2000/XP/VISTA. / WIN. |

**Professional Experience:**

**Ford,** **PA Jan 2023 – Till date**

**Senior Data Analyst/power bi developer**

**Responsibilities:**

* Created interactive Power BI dashboards to offer real-time insights into production line performance and equipment downtime.
* Designed and implemented scalable data warehousing using Snowflake to manage complex big data across sources.
* Utilized Python libraries like Pandas and NumPy for data manipulation and analysis on extensive datasets.
* Implemented Azure Data Factory pipelines for smooth integration of production data from various systems into a centralized data warehouse.
* Developed automated workflows in SSIS for seamless data integration, ensuring efficient processing across various systems.
* Managed and administered SQL Server databases using SSMS, ensuring they were always available and performing at their best.
* Integrated CI/CD pipelines using tools such as Azure DevOps and Jenkins to automate the building, testing, and deployment of applications.
* Automated data migration processes, ensuring the accurate transfer of large datasets while reducing manual intervention.
* Created reusable ETL components to standardize data transformation tasks across various projects.
* Integrated data from various sources, including SQL databases, Excel, and cloud storage, into Power BI for comprehensive reporting.
* Connected Tableau to multiple data sources, including SQL Server, cloud databases, and flat files, to enable comprehensive reporting.
* Optimized SQL queries and stored procedures to enhance performance and decrease execution time in high-traffic environments.
* Created SSIS packages focused on data cleansing, validation, and transformation to uphold data quality throughout business operations.
* Developed and maintained intricate SQL queries, stored procedures, functions, and triggers within SSMS for a variety of applications.
* Created predictive models with Python’s machine learning libraries, such as Scikit-learn and TensorFlow, to drive business insights.
* Managed data migration from on-premises databases to cloud environments like Azure and Snowflake, ensuring scalability and reliability.
* Connected different data sources such as SQL Server, Blob Storage, on-premises systems with Azure Data Factory for supporting effortless migration of data
* Used SQL to analyze and clean extensive datasets related to supply chain, inventory management, and production scheduling.
* Collaborated with stakeholders to define business requirements and translated them into technical specifications for data modeling.
* Created calculated columns, measures, and custom DAX expressions to improve data analysis and visualization within Power BI.
* Integrated DevOps workflows with monitoring and logging tools like Prometheus and Grafana to monitor application performance and system health.
* Worked closely with business users to identify data needs and convert them into effective SQL queries.
* Validated and tested ETL pipelines to ensure data accuracy and alignment with business needs.
* Utilized SSIS to schedule and automate ETL jobs, enhancing data migration and minimizing manual effort.
* Utilized Tableau Prep to clean, merge, and prepare data prior to importing it into Tableau for analysis.
* Performed root cause analysis on manufacturing defects, resulting in a 10% enhancement in product quality.
* Built Snowflake databases, schemas, and tables with optimal storage and query performance to handle large amounts of data in the cloud.
* Created documentation for data migration processes, providing clear instructions for future maintenance and updates.
* Automated reporting tasks by writing Python scripts that pull data from APIs, databases, and flat files.
* Built data models and established relationships in Power BI to accommodate complex reporting needs and ensure accurate insights.
* Employed Azure DevOps to track project progress, manage repositories, and facilitate smooth collaboration among cross-functional teams.
* Automated daily reporting on production KPIs with Power Automate, saving 8 hours each week in manual reporting efforts.
* Worked alongside plant managers and engineers to pinpoint key metrics for tracking machine efficiency and labor productivity.
* Monitored database performance in SSMS by analyzing query execution plans, optimizing queries to improve efficiency and reduce execution time.
* Utilized Big Query's advanced functions like window functions and array handling to perform data transformations and analysis.
* Conducted data profiling, cleansing, and validation using SQL to maintain data quality and ensure compliance with business rules.
* Leveraged cloud-based ETL tools like Azure Data Factory and AWS Glue to facilitate scalable data integration processes.
* Adapted to changing business needs and rapidly shifting priorities, ensuring flexibility in delivering on key milestones in Agile environments.
* Created and setup Azure Data Factory triggers for scheduling and automating data workflows for effective process improvement.
* Integrated IoT sensor data into Dataverse for real-time monitoring of machine performance across several manufacturing plants.
* Utilized Power BI Service to share dashboards, schedule data refreshes, and manage user access to reports.
* Employed Python to process unstructured data, including text and JSON, converting it into structured formats for analysis.
* Applied statistical process control (SPC) analysis to oversee product quality and process stability.
* Designed and implemented SQL-based data models to monitor and predict raw material usage, leading to a 12% reduction in waste.
* Employed version control and deployment strategies to oversee ETL code and jobs across multiple environments.
* Used automatic scaling from Snowflake to handle workloads and optimize query times.
* Employed Agile frameworks like Scrum and Kanban to manage and prioritize data analysis and development tasks.
* Conducted data exploration and analysis using Big Query's standard SQL to generate actionable insights for business decisions.
* Developed custom Python scripts to analyze production line data and streamline workflow, minimizing bottlenecks.
* Led the shift from outdated reporting systems to Power BI, enhancing reporting speed and accuracy by 40%.
* Tuned pipelines on Azure Data Factory for performance optimization and reducing execution times on large-scale data workloads
* Conducted performance tuning on ETL jobs to manage large data sets, enhancing overall process efficiency.
* Built data pipelines using Python to manage both batch and real-time data processing tasks, integrating with cloud platforms like AWS and Azure.
* Collaborated with data engineers to establish a scalable Snowflake architecture for processing high-volume manufacturing data.
* Developed Extract, Transform, and Load processes on Snowflake based on SQL and Python to produce usable insights from raw data.
* Designed and automated ETL processes for inventory management, improving stock visibility and reducing overstocking.

**QVC, West Chester, PA JUN 2020 – DEC 2022**

**Sr Data Analyst**

**Responsibilities:**

* Led the creation of sales performance dashboards using Power BI, delivering real-time insights into product performance, inventory levels, and revenue trends.
* Streamlined retail sales reporting processes with Power Automate, cutting manual reporting efforts by half.
* Designed and refined complex SQL queries to extract, transform, and analyze extensive retail datasets from SQL Server and Snowflake.
* Leveraged Python to develop custom data visualization solutions with Matplotlib and Seaborn.
* Integrated ETL processes with a variety of data sources, including APIs, databases, flat files, and cloud services.
* Utilized SQL for ad-hoc reporting and analysis, providing insights for different business functions such as sales, marketing, and operations.
* Conducted database backups, restores, and recovery tasks using SSMS to maintain data integrity and ensure business continuity.
* Integrated data from diverse sources, such as flat files, APIs, and SQL databases, using SSIS for thorough data analysis.
* Worked closely with business users to gather requirements and design customized Tableau dashboards that met their needs.
* Collaborated with cross-functional teams to define data integration requirements and ensured alignment with business objectives.
* Implemented automated testing frameworks within the DevOps pipeline to maintain code quality and reduce the risk of bugs in production.
* Fostered a continuous delivery mindset by automating testing and deployment processes in the context of Agile development cycles.
* Managed ETL workflows in Big Query, transforming raw data into structured formats for reporting and analytics.
* Collaborated with business users to define KPIs and metrics, providing Power BI solutions tailored to specific business requirements.
* Integrated data lakes along with other forms of data storage systems with Snowflake using external tables and Snow pipe for real-time data loading.
* Conducted data cleaning, preparation, and exploratory data analysis in Python before inputting data into BI tools.
* Automated data ingestion into Big Query using Google Cloud Storage and scheduled queries for regular data updates.
* Monitored and optimized data integration processes to improve performance and reduce latency in data delivery.
* Created detailed documentation for user stories, including data models, ETL processes, and reporting requirements in alignment with Agile methodologies.
* Employed SSIS for incremental data loads, guaranteeing minimal downtime and up-to-date reporting.
* Created calculated fields, LOD (Level of Detail) expressions, and parameterized controls for dynamic reporting in Tableau.
* Integrated SQL databases with BI tools like Power BI and Tableau to develop interactive dashboards and reports.
* Maintained data integrity throughout the ETL process by implementing error handling, logging, and auditing mechanisms.
* Configured and managed SQL Server Agent jobs in SSMS to automate routine tasks like data imports and backups.
* Worked with Data Engineers and Architects to develop scalable data solutions using Azure Data Factory by improving system architecture.
* Created partitioned and clustered tables in Big Query to improve query performance on large datasets.
* Automated data refresh processes in Power BI to guarantee that reports are updated with the latest information for timely decision-making.
* Worked with cloud platforms like AWS and Azure to set up scalable and reliable data integration pipelines.
* Integrated real-time sales data from various stores into a centralized Dataverse for comprehensive cross-channel performance analysis.
* Integrated security tools into the DevOps pipeline to maintain compliance with data security standards and regulations.
* Established error handling and logging mechanisms within SSIS packages to monitor and resolve issues during data loads.
* Created Power BI dashboards to monitor key retail KPIs such as sales conversion rates, customer lifetime value, and average order value.
* Built and maintained ETL processes using SQL to transfer and transform data from source systems into data warehouses.
* Worked alongside the IT team to establish an Azure Data Factory pipeline that automated the daily ingestion of sales data from multiple stores.
* Created Python scripts to automate repetitive tasks such as data validation, profiling, and quality checks.
* Used the time travel feature of Snowflake to recover data in case of failures or historical analysis.
* Collaborated with business users to establish data transformation requirements and design ETL processes accordingly.
* Conducted performance tuning on Power BI reports by optimizing data sources and simplifying visuals, which enhanced load times.
* Developed customer churn prediction models using machine learning techniques, aiding in the retention of high-value customers.
* Conducted margin analysis by product category, pinpointing underperforming products and contributing to a 5% reduction in costs.
* Integrated Agile principles into the data engineering lifecycle, ensuring that data pipelines and models could evolve based on stakeholder feedback.
* Provided data insights for promotional and discount strategies, optimizing pricing and maximizing revenue.
* Exported data from on-premises SQL Server databases to an Azure SQL Database without much downtime by using Azure Data Factory.
* Integrated Python with SQL databases and cloud data warehouses like Snowflake for smooth data access and processing.
* Executed market basket analysis to identify products frequently bought together, driving upsell opportunities in both online and physical stores.
* Conducted A/B testing to assess the impact of new marketing campaigns, resulting in a 12% increase in email click-through rates.
* Integrated data from structured and unstructured sources, such as NoSQL databases and flat files, for comprehensive analysis.
* Integrated data from e-commerce platforms and in-store sales systems for cohesive reporting across all retail channels.
* Employed SQL Server Management Studio (SSMS) to manage and administer databases, ensuring high availability and disaster recovery.
* Utilized the potential of linked services and datasets in Azure Data Factory to design a combination of reusable building blocks that support development
* Developed Python scripts to automate data cleansing processes, ensuring data accuracy and minimizing manual effort.

**Optum, NJ Dec 2018 - May 2020**

**Data Analyst**

**Responsibilities:**

* Designed healthcare analytics dashboards in Power BI to deliver real-time insights into patient care and resource allocation.
* Employed advanced SQL techniques to clean and prepare data for in-depth analysis, enhancing data reliability.
* Developed machine learning models in Python to predict patient readmissions, achieving a 20% reduction in re-admission rates.
* Spearheaded the automation of reporting processes with Power Automate, saving 10 hours each week.
* Used Python to build API integrations, retrieving data from third-party services and loading it into data warehouses.
* Crafted complex joins, subqueries, and aggregate functions in SQL to extract data from multiple tables for in-depth analysis.
* Enabled data transformation operations such as filtering, aggregation, and joins on very large datasets by using the data flow of Azure Data Factory.
* Developed materialized views in Big Query to precompute and cache query results for faster access to frequently requested data.
* Published and managed Tableau dashboards on Tableau Server, ensuring secure access for business users and clients.
* Created ETL workflows in Azure Data Factory for seamless data integration across various systems.
* Collaborated with business users to outline ETL requirements and executed them using SSIS to aid decision-making processes.
* Collaborated with data scientists and analysts in an Agile environment, ensuring that analytical insights were incorporated into business strategies in real-time.
* Handled security management in SSMS by assigning roles, setting permissions, and controlling access for database users.
* designed a Snowflake architecture with data engineers in conjunction, keeping performance and cost efficiency at the core.
* Conducted root cause analysis on healthcare claims data, uncovering trends that resulted in a 10% cost reduction.
* Leveraged Power BI's advanced analytics features, such as drill-through, bookmarks, and conditional formatting, to boost interactivity.
* Automated ETL workflows to accommodate both real-time and batch processing scenarios, ensuring consistency and accuracy in data pipelines.
* Used Agile metrics like velocity and burndown charts to track progress and optimize team performance for delivering data-driven solutions.
* Performed performance tuning on SQL databases by reviewing execution plans and optimizing resource-heavy queries.
* Optimized the performance of Tableau reports by simplifying queries and visualizations.
* Collaborated with data engineers to design and implement efficient data models in Big Query, supporting large-scale data processing.
* Developed and implemented custom data validation frameworks in Python to ensure data integrity throughout ETL processes.
* Applied Azure Monitor and Log Analytics for error handling and performance tracking with regard to the pipelines created in Azure Data Factory.
* Leveraged SSIS to transfer large datasets between servers and cloud platforms like Azure and AWS.
* Utilized SSMS to manage both clustered and non-clustered indexes to boost query performance on large datasets.
* Established data governance policies to ensure adherence to HIPAA regulations.
* Built Power BI dashboards utilizing advanced DAX functions for comprehensive analysis of patient outcomes.
* Collaborated with clinical teams to pinpoint key performance indicators and generate data-driven reports.
* Integrated Power BI with cloud platforms like Azure and Snowflake to develop scalable data solutions for enterprise reporting.
* Developed roles, users, and permissions and managed all these through the Snowflake interface to have adequate security on the data and compliance.
* Integrated Tableau with cloud platforms such as Snowflake and Azure for large-scale data visualization and analysis.
* Performed data migration from on-premises databases to Big Query, ensuring smooth transition with minimal downtime.
* Created interactive data applications using Python libraries like Flask and Dash, enabling users to explore insights in real-time.
* Designed and implemented data quality rules to identify and rectify inconsistencies in patient records.
* Monitored and optimized ETL jobs to minimize execution time and guarantee timely data availability for reporting and analytics.
* Ensured data security by integrating Azure Data Factory with Key Vault to handle sensitive credentials and secrets.
* Developed Python scripts for data wrangling, improving data preprocessing capabilities.
* Engaged with business stakeholders to clarify data requirements for healthcare analytics.
* Combined Tableau and Power BI for improved cross-platform reporting.
* Optimized storage and compute costs on Snowflake by managing virtual warehouses and query patterns.
* Conducted A/B testing and statistical analysis with Python to assess the effectiveness of marketing campaigns and product changes.
* Used Power Query to clean, transform, and shape data before loading it into Power BI for analysis.
* Optimized SQL queries to enhance performance in retrieving large datasets for healthcare analytics.
* Use SSIS, Talend, and Azure Data Factory for developing ETL pipelines to process big data efficiently.
* Executed data profiling and validation in Snowflake so that the quality and consistency of data could be achieved before reporting into those reporting tools.
* Automated data quality checks using Python and Azure Functions to ensure data accuracy.
* Trained clinical teams on utilizing self-service analytics tools for informed decision-making.

**Tek Optimize, India Jun 2012 – July 2017**

**Data Analyst**

**Responsibilities:**

* Collaborated with business users to grasp their data visualization needs.
* Analyzed the Sales data mart model to pinpoint the necessary tables and relationships for extracting relevant data.
* Engaged in issue investigations to verify the accuracy of critical data elements and reviewed historical issue records to evaluate their impact on failures.
* Worked closely with the Database and Data Governance (DGS) teams to ensure projects were delivered on time.
* Crafted SQL queries to pull data from Sales data marts according to business requirements.
* Developed Source-to-Target data mappings for specific reports.
* Created a variety of Tableau visualizations, such as Scatter Plots, Geographic Maps, Pie Charts, Bar Charts, and Density Charts.
* Prepared test cases to ensure data accuracy and the visual appeal of the reports.
* Constructed new data models from various data sources, including flat files, web services, Oracle, and MS SQL Server.
* Conducted quantitative data analysis and modeling, including risk assessments, to aid business decision-making and enhance algorithmic outcomes.