SHADRACK YAWE KIZZA

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Professional Summary

Seasoned data engineer with two years experience in designing, building, and optimizing scalable data pipelines and solutions that enable businesses to make informed, data-driven decisions. My technical expertise spans Microsoft Fabric, Azure Data Factory, Power BI, Snowflake, dbt, Azure Databricks, and Matillion ETL, ensuring seamless data extraction, transformation, and loading (ETL) processes. Leveraging a strong foundation in mathematics and statistics, I bring analytical rigor to solving complex data engineering challenges. With a collaborative mindset and meticulous attention to detail, I thrive in dynamic, team-oriented environments that prioritize innovation and excellence.

Core Competencies

- Cloud Infrastructure: Microsoft Azure
- Programming Languages: Python, SQL, R, Spark SQL
- SQL: Snowflake, T-SQL, Oracle, Teradata
- RDBMS (Databases): Microsoft SQL Server, Oracle, PostgreSQL, Azure SQL Database
- Reporting and Visualization tool: Microsoft Power BI
- ETL Tools: Azure Data Factory, DBT, Informatica, Matillion, IBM Cognos, Microsoft Fabric
- Data Analytics: STATA, SPSS Statistics, Excel
- Microsoft Office: Word, Excel, PowerPoint

Professional Experience

Komhar Services LLC, USA   **November 2023 - Present**
Data Engineer

- Collaborated with a team of ten professionals to transition intricate data pipelines from Informatica to Azure Data Factory (ADF), successfully migrating data from SQL Server to Snowflake. Redesigned workflows and optimized data transformation logic to leverage ADF capabilities, ensuring seamless migration while preserving data accuracy and performance.
- ETL Workflow Design: Designed, configured, and maintained robust ETL workflows in ADF, integrating on-premises and cloud data sources, including Azure Data Lake and Blob Storage. Created parameterized workflows for multi-environment deployments, increasing development efficiency and reducing manual intervention.
- Leveraged Azure DevOps (ADO) for code versioning, pull requests, and collaborative code reviews, ensuring streamlined and organized code management.
- System Integration Testing: Collaborated with the System Integration Testing (SIT) team and clients to troubleshoot and debug error pipelines, ensuring data consistency, accuracy, and alignment with business requirements. Conducted root cause analysis for pipeline issues, implementing preventive measures to ensure ETL stability and reliability.
- Data Testing and Performance Tuning: Tested the ETL process from various data sources (SQL Server, Oracle, flat files) into the target database as per data models. Resolved performance and complex logic issues in the ETL process, identifying bottlenecks and optimizing critical paths of data transformation. Enhancements included optimized SQL queries for Snowflake, data partition strategies in ADF, and reducing latency between ADF activities.
- Collaborated with a team of eight professionals to migrate workflows from IBM Cognos to dbt and Snowflake, enhancing system integration, performance, and efficiency in data processing and analytics.
- Proof of Concept Projects: Worked with a team of five professionals to develop and deliver POC projects, transitioning data workflows from older ETL tools (Informatica, IBM Cognos) to modern platforms (dbt, Databricks, ADF). Designed efficient ETL pipelines in collaboration with clients, enabling successful adoption of modern data systems.

Allied Systems Group, USA   **September 2024 – October 2024**
Fabric Analytics Engineer Intern

- Designed and implemented advanced analytics solutions in Power BI, utilizing predictive models with regression analysis, anomaly detection, and Key Influencer visuals to identify business drivers and forecast trends. I also configured drill-through functionality to enhance interactivity and provide granular insights. Integrating Python, I performed advanced regression analysis, bridging data science and business

intelligence to deliver actionable insights. I demonstrated scenario-based analysis using "What-If" parameters and custom tooltips to improve user engagement.

- Managed Power BI deployment pipelines to streamline report development and deployment processes, ensuring smooth transitions between testing, QA, and production environments. I configured deployment rules, integrated on-premises gateways, and automated workflows to maintain data accuracy and security. Moreover, I implemented Row-Level Security (RLS) based on organizational hierarchies to protect sensitive data and ensure compliance. I created real-time alerts using Data Activator to notify sales managers of underperforming personnel, facilitating timely interventions and enhancing accountability.

- Developed and showcased advanced data modelling techniques using Power Query and DAX, including joins, pivoting, and unpivoting transformations to reshape and analyse data. I also designed dashboards, Power BI apps, and custom themes to standardize reporting while adhering to branding guidelines. Additionally, I delivered workshops and demos on key Power BI features—such as Quick Measures, regression analysis, RLS, and deployment pipelines—fostering a data-driven culture across the organization.

- Developed and secured a private Azure Data Lake Storage (ADLS) account with public access disabled to ensure data security and compliance. I configured trusted workspaces within Microsoft Fabric to enable secure connectivity while maintaining strict access control, facilitating collaborative data access for analytics and reporting without compromising sensitive information.

- Implemented a proof-of-concept demo to showcase integration with the ADLS account using private endpoints to restrict network access to approved virtual networks. Utilizing Spark notebooks within Microsoft Fabric, I queried, processed, and analysed large datasets stored in the ADLS, demonstrating the platform's capability to handle complex big data workloads securely and efficiently.

- Implemented a proof of concept to transfer data from ADLS to Microsoft Fabric using shortcuts for direct access and SFTP for secure file transfers. These methods highlighted the flexibility of Microsoft Fabric in managing diverse data integration scenarios, supporting both large-scale batch processing and ad-hoc data transfers.

Techsoft Group LLC, Atlanta   October 2021 - April 2022
Data Engineer Intern
- Collaborated with Architects to design a curated data model that meets our Business Stakeholders current wants and anticipates their future business data and analytic needs.
- Worked with our Offshore Team to design and configure rapid ingestion of raw data sources into our Azure Data Lake for better availability and uptime.
- Modelled an application that manages all day-to-day activities of a business from a centralized point to reduce costs, Used for handling employee time entry, on boarding and issue tracking among others.
- Implemented seamless data migration processes on the azure platform from storage to database for querying using Azure Data Factory.

Projects

Building Procurement Project   February 2022
- Designed and implemented an end-to-end data pipeline using Azure Data Factory to streamline data collection, transformation, and loading process for a large-scale procurement system which collected building quotations from multiple builders in CSV format and integrated them seamlessly into the pipeline.
- Utilized the self-hosted Azure Integration Runtime to collect raw data from on-premises sources to Azure cloud environment. Ensured seamless integration between on-premises and the Azure cloud environment, overcoming latency and connectivity challenges.
- Utilized Azure Data Factory Data Flows to cleanse and transform the raw data to enrich it to enhance data quality and accuracy.
- Orchestrated daily pipeline execution using a timestamped-based schedule to transfer raw data from on-premises servers to a staging area in Azure Data Lake, then to an SQL Database.
- Automated the ETL processes to maintain data consistency and timeliness.

Web Commerce Analytics Project   September 2023
- Designed and implemented ETL processes to extract data from various sources including AWS s3 buckets, MariaDB and MySQL and ensured seamless integration of the raw data.
- Integrated data from numerous sources such as customer data, sales data, and product catalogue information, to create a holistic view of e-commerce operations.
- Developed data transformation workflows within Matillion to process, clean and transform the raw data using various components which enabled the creation of tidy and consistent analytics ready datasets.
- Orchestrated the loading of transformed data into a Snowflake data warehouse for analytical purposes.

- Collaborated with the analytics team to build dashboards and reports for stakeholders.

Education

Makerere University   **2021 - 2024**
- Bachelor of Statistics

Certifications

- Microsoft Certified Fabric Analytics Engineer Associate (DP-600)
- Microsoft Certified Power BI Data Analyst Associate (PL-900)
- Microsoft Certified Azure Data Engineer Associate (DP-203)
- Microsoft Certified Azure Fundamentals (AZ-900)
- Microsoft Certified Azure Data Fundamentals (DP-900)
- Microsoft Certified Azure AI Fundamentals (AI-900)
- The R Programming Environment – Coursera Certificate
- Advanced R Programming – Coursera Certificate
- Matillion Data Productivity Cloud Foundations
- Matillion Associate Certification (In Progress)
- DBT Analytics Engineering Certification (In Progress)
- SnowPro Core Certification – Snowflake (In Progress)