Ronobir Das

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Skills

ETL and Orchestration: dbt (data build tool), Apache Airflow, Microsoft SQL Server Integration Services (SSIS) and Microsoft Data Quality Services

Databases and SQL Dialects: Snowflake, Spark SQL, Microsoft SQL Server, PostgreSQL, Google BigQuery

Data Visualization: Tableau, Tibco Spotfire, SAS JMP

Cloud Platforms: AWS (Glue, Redshift, RDS, MWAA, S3, IAM)

Programming Languages: Python (PySpark, DuckDB, data load tool, Airflow, Pandas)

Experience

Business Intelligence Engineer, Keysight Technologies – Santa Rosa, CA   May 2020 – June 2023

- Redesigned the pipeline and performance of a key CX KPI tracking dashboard. Implemented data loading improvements by migrating existing SQL queries from the BI layer to the Snowflake data warehouse with Materialized Views, resulting in a dashboard load time improvement from 45 minutes to 1 minute, and source system data retrieval volume reduction of 65%.

- Developed 2 dashboards in Tibco Spotfire from Excel based reports saving 80% in time to report generation with data freshness. Previous reports done manually over a period of 2 to 3 days with data being updated only once a month, to nightly scheduled incremental load batch ETL runs with monitoring and alerts along with automated data quality checks with Microsoft SSIS and DQS instead of Excel based adhoc spot checks.

- Optimized the data model for the Service Warranty and Repair Metrics dashboard for denormalization and dimensions incorporating SCD Type 2s and refined existing ETL scripts with predicate pushdown, reducing source system data retrieval volume by 45%.

- Migrated 4 existing report and dashboard pipelines from Oracle (12c R2) Database and Oracle Exadata to Microsoft SQL Server and Snowflake. Part of the rolling data migration efforts involving pipeline re-engineering and schema harmonization.

- Improved Service-On-Time (SOT) repair KPIs and maintenance efforts by over 60%. Developed and implemented a Service Metrics dashboard in Tibco Spotfire, empowering Keysight internal teams to track product maintenance and service requests and ensure metrics related to contractual service agreements were met.

- Partnered with Sales and Logistics teams to analyze trending issues in Customer Logistics & Out-Of-Box Experience KPIs. Developed a dashboard and associated datapipeline to track OBE KPIs (Defect Rate, Rate-of-Return) and Logistics (Shipment Volume, On-time Shipment, Delay-to-ship% etc) improving case resolutions by 45%.

- Drove development of new product combination bundles in collaboration with Sales and Marketing for 5G Telecommunications Equipment leading to $500K+ per year of additional enterprise equipment sales. Conducted historical analysis of transactional order data to identify emerging product combinations by given enterprise client involving development of batch data pipeline for quarterly analysis of equipment purchase history using Tibco Spotfire, Microsoft SSIS, SQL Server and DQS.

Manufacturing Quality Analyst, Keysight Technologies – Santa Rosa, CA   August 2018 – May 2020

- Enhanced existing Manufacturing Yield Analysis reporting process resulting in 80% reduction in engineering time savings from 2 hours to 10 minutes. Rearchitected manual SAS JMP based Root Cause Analysis visualization and reporting workflow to automated yield alert system using R (Shiny and Tidyverse packages).

- Owned electrical hardware product lines by ensuring the highest quality and reliability parameters for guaranteed product performance following LEAN Manufacturing and Six Sigma guidelines. Created and presented Semiconductor Manufacturing Analytics Reports by creating statistical models for Parametric Yield Analysis through SAS JMP from Oracle Database backed Semiconductor Manufacturing Execution System (MES) to support R&D, Product Development, and Reliability Engineering teams with QA and manufacturing recommendations

Projects

Airbyte + Motherduck Hackathon Project (January 2025)   github.com/Zesky665/GreenGridGeeks

- Created a batch pipeline and dashboard consisting where in we extract from the Finnish Electrical Grid's open APIs using Airbyte, stored the intermediate data in AWS S3, loaded into the Motherduck Datawarehouse, transformed and created the Dimensional Data models with dbt, orchestrated with GitHub Actions, and data visualizations with Streamlit, with data quality and unit testing checks in dbt.

Education

University of Nevada, Las Vegas – Bachelor of Science in Electrical Engineering	June 2018
DeepLearning.AI & AWS Data Engineering Professional Certificate	December 2024
Google Business Intelligence Specialization Certificate	August 2024
University of Colorado, Boulder Python Data Wrangling Certificate	July 2024
Databricks Apache Spark for Data Analysts Certificate	May 2024
University of Colorado, Boulder Databases for Data Scientists Certificate	November 2023
University of California, Davis Fundamentals of Visualization with **Tableau**	September 2023
Microsoft Certified: Azure Data Fundamentals (DP – 900)	July 2023