

Diviya M

Data Engineer

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Overview

Detail-oriented Data Engineer with 6 years of strong foundation in SQL, data warehousing, and data analysis. Evolved into delivering robust BI and data solutions on Azure, with expertise in Synapse, Data Lake, and modern ETL pipelines.

Experience Summary

- ❖ Designed OLTP/OLAP-targeted data pipelines with embedded fault-tolerance logic to minimize runtime interruptions.
- ❖ Developed policy-compliant data protection controls in Synapse Analytics to meet organizational confidentiality standards.
- ❖ Coded Azure Functions to react to system-triggered messages via Event Grid, supporting responsive operations.
- ❖ Executed cloud-native data migration blueprints including schema refactoring and pipeline reengineering to ensure smooth transitions.
- ❖ Integrated profiling workflows into Azure Data Factory pipelines to evaluate data quality and completeness during ingestion.
- ❖ Connected Azure Databricks with Active Directory authentication to support unified login experiences for enterprise users.
- ❖ Defined secure access layers in Azure Purview, mapping permissions to roles for controlled visibility across datasets.
- ❖ Engineered platform-independent data transfer jobs that moved content across databases with high fidelity and efficiency.
- ❖ Populated Azure Data Lake metadata repositories with transformation metadata and lineage info to uphold governance policies.
- ❖ Managed infrastructure-wide security configurations to assign sensitive data privileges based on department-level responsibilities.
- ❖ Configured centralized role hierarchies and data access controls in relational systems to maintain tight security boundaries.
- ❖ Optimized SQL Server configurations and Power BI data models to achieve stable system behavior under increased demand.
- ❖ Built interactive SSRS reports with user-driven parameter filters, allowing real-time personalization of data views.
- ❖ Programmed self-adjusting report controls in SSRS that responded to user input and filtered results without manual edits.
- ❖ Maintained SSIS-level trace logs that captured each processing step for audit-ready data lineage visibility.
- ❖ Drafted comprehensive access strategies in SSAS cube models to enforce segmented visibility based on user identity.
- ❖ Created end-user-focused Tableau charts with JavaScript plug-ins to address complex visualization needs outside default options.
- ❖ Documented all stages of ETL logic—field-level mappings, transformation steps, and destination models—for reproducibility and audits.
- ❖ Orchestrated live synchronization in Snowflake instances, allowing concurrent updates across production and testing environments.
- ❖ Applied binary search-based Git debugging using automated bisecting to isolate faulty code revisions quickly.

Skills

- ❖ **Cloud Data Architecture**
Designed scalable data platforms using Azure Data Lake, Synapse, Key Vault, and Cosmos DB to support secure, high-volume processing.
- ❖ **Data Visualization & BI**
Built interactive dashboards and visual reports in Power BI and Tableau; skilled with SSIS, SSRS, and SSAS for enterprise analytics delivery.
- ❖ **Data Pipelines & Automation**
Developed efficient ETL workflows with Azure Data Factory and Snowflake, handling both batch and streaming data sources.
- ❖ **SQL Development & Optimization**
Wrote and optimized complex T-SQL queries and procedures; improved performance for transactional and analytical systems.
- ❖ **Agile & DevOps Practices**
Worked in Agile teams using Azure DevOps for sprint planning, code management, and automated deployments.

Academics

- ❖ Bachelor of Technology from Anna University, Chennai, Tamil Nadu, India. (2015 – 2019)
- ❖ PGDM - Virtualisation and cloud computing, Conestoga College – Kitchener. (2023)

Certification

- ❖ Azure Data Engineer Associate.

Professional Experience

Role: Data Engineer

Client: Coveo, QC

Duration: Nov 2024 –Till Date

Skills- Azure Databricks, Power BI, DAX, Azure Data Lake, Azure Purview, Tableau, Snowflake, IoT Analytics, Azure Synapse, Azure Stream Analytics, SQL Server, Data Security, Federation Views, Azure Private Link, ADF, Git, Peer Review

Responsibilities:

- ❖ Created Synapse optimization strategies through storage partitioning, indexing, and cost-based query tuning.
- ❖ Built Power BI metrics using advanced DAX logic to model intricate KPIs aligned with business priorities.
- ❖ Engineered integrated Snowflake and Purview ecosystems for traceable, compliant data workflows.
- ❖ Unified data from disparate sources using scalable fusion logic, creating high-quality integrated datasets.
- ❖ Automated batch jobs in Azure Databricks to handle recurring tasks autonomously, eliminating manual triggers.
- ❖ Established retry-enabled pipelines in Azure Data Factory to overcome transient faults and ensure completion.
- ❖ Connected Azure Data Lake with IoT telemetry feeds to enable high-velocity analytics on real-time events.
- ❖ Maintained SQL and Power BI project reliability through thorough peer reviews and continuous testing cycles.
- ❖ Built Power BI dashboards with interactive tooltips and visuals that elevate analytical depth and user retention.
- ❖ Designed Azure Stream Analytics outputs for seamless real-time Power BI data refresh and visualization.
- ❖ Developed federation views on SQL Server to unify access across external data platforms via linked interfaces.
- ❖ Structured anomaly detection and data cleansing via Azure Purview profiling to uphold enterprise standards.
- ❖ Configured Snowflake to leverage cross-region replication and result caching for speed and data consistency.
- ❖ Enabled fine-grained access via Azure Private Link, confining data transit to secure private endpoints.
- ❖ Captured detailed metadata in Azure Data Lake and linked it to Purview to maintain real-time lineage visibility.
- ❖ Designed encrypted SQL Server schemas and role-based security layers to manage sensitive data exposure.
- ❖ Drafted clear documentation for Power BI assets, detailing dataset structure, semantic layers, and reporting flows.
- ❖ Executed storage synchronization paths between Azure SQL and Data Lake to unify structured and raw formats.
- ❖ Outlined multi-step migration blueprints to relocate workloads across platforms with zero service disruption.
- ❖ Implemented adaptive retry logic in ADF pipelines to mitigate intermittent failures and preserve job continuity.
- ❖ Orchestrated cross-platform data flows using modular scripts that securely exchange records between systems.
- ❖ Managed OLAP/OLTP connection pools to enhance throughput, manage latency, and optimize resource distribution.
- ❖ Wrote diagnostic rules for SQL alerts and dashboards to proactively detect and mitigate database anomalies.
- ❖ Implemented Git cherry-pick with skip logic to manage code merges while omitting non-relevant commits.
- ❖ Programmed Azure Functions to automatically react to system-generated events from Azure Event Grid.
- ❖ Tuned Bayesian models through hyperparameter optimization to improve neural network inference accuracy.
- ❖ Established encrypted computing in Azure Synapse using secure enclaves to guard data even during processing.
- ❖ Charted data transformations across Tableau using hover-enabled dashboards that support layered exploration.
- ❖ Designed interactive Tableau visuals with trend indicators and reference benchmarks to highlight key changes.
- ❖ Planned secure access policies using data encryption and permission roles to enforce least-privilege principles.
- ❖ Monitored ADF performance metrics and throughput indicators to maintain workflow efficiency and responsiveness.

Role: Senior Azure Data Engineer

Client: Magnet Forensics, Waterloo, ON

Duration: Aug 2023 – Nov 2024

Skills- PostgreSQL, ADF, Azure API Management, OLAP, OLTP, Power BI, Tableau Prep, Data Transformation, Data Anonymization, Databricks, Metadata Management, Snowflake, SQL Federation, DevOps, Azure Purview, Azure Analysis Services, Azure Data Lake, Data Governance, T-SQL, Azure Synapse

Responsibilities:

- ❖ Refined heavy T-SQL queries for Azure Synapse to improve runtime efficiency over extensive datasets.
- ❖ Adopted parallel data flow strategies in ADF to enhance reliability and throughput for high-volume pipelines.
- ❖ Accelerated query performance in PostgreSQL by segmenting oversized tables using list and range partitioning techniques.
- ❖ Structured anonymized processing flows that balance privacy requirements with analytical utility.
- ❖ Configured security boundaries in Databricks through scoped user roles, audit settings, and encrypted data exchange policies.
- ❖ Unified operational data pipelines across OLAP and OLTP systems through automated workflow orchestration.

- ❖ Enabled live reporting on cloud-based assets through Power BI integrations with Azure-native datasets.
- ❖ Built enriched transformation flows that convert raw ingestion into analytic-ready formats across varied domains.
- ❖ Engineered high-performance semantic layers in Azure Analysis Services with in-memory Power BI integrations.
- ❖ Orchestrated robust multi-platform data transfers using cross-compatible scripts to streamline operational efficiency.
- ❖ Developed SQL federation architecture to consolidate both external and internal data views under unified access.
- ❖ Connected Tableau visualizations to live data feeds for real-time performance dashboards and alerting use cases.
- ❖ Designed Snowflake migration routines to support hybrid storage systems and ensure seamless data transition.
- ❖ Embedded DevOps pipelines with Data Lake operations, enabling continuous data integration with CI/CD support.
- ❖ Automated table normalization using Tableau Prep workflows to cleanse and shape disordered inputs at scale.
- ❖ Executed parallel partition logic in Azure Data Lake to process large files more efficiently during transformation.
- ❖ Established continuous Snowflake integrity checks using anomaly detection patterns to protect data quality.
- ❖ Coded anonymization routines to redact personal identifiers while maintaining downstream analytical viability.
- ❖ Aligned ADF orchestration with compliance mandates by embedding validation checkpoints into operational pipelines.
- ❖ Validated system health through schema-aware quality controls that preempt data inconsistencies.
- ❖ Assembled automated OLAP and OLTP synchronization routines to eliminate manual interventions and streamline processing.
- ❖ Integrated scalable Power BI solutions using Azure datasets to unlock reporting across expansive data landscapes.
- ❖ Architected API Management gateways in Azure to enforce request governance, version lifecycle rules, and onboarding simplicity.
- ❖ Maintained active lineage capture and auditability for BI assets to reinforce governance and compliance protocols.
- ❖ Audited Power BI usage and lineage patterns to ensure trustworthy insights and reinforce stakeholder transparency.
- ❖ Facilitated partnerships with governance units to align engineering practices with enterprise data standards.
- ❖ Engaged Azure Purview to regularly verify data catalog completeness, lineage mapping, and glossary precision.
- ❖ Deployed metadata generation scripts that produce complete schema documentation and field-level catalogs.
- ❖ Identified usage surges in Snowflake environments by observing behavioral metrics and platform engagement trends.

Role: Data Pipeline Engineer – Azure

Client: IndusInd Bank, Delhi, IN

Duration: Aug 2020 - Nov 2022

Skills- SQL Server, T-SQL, ADF, Power BI, SSRS, Tableau, Snowflake, Data Transformation, Synapse, SSIS, Databricks, Azure Data Lake, Azure Purview, SSAS

Responsibilities:

- ❖ Orchestrated data freshness by binding ADF output pipelines directly to visualization tools for real-time feedback.
- ❖ Assembled real-time ADF integrations with BI platforms, enabling instant insights across business functions.
- ❖ Programmed Power BI to support enterprise-wide discovery with layered, searchable reporting content.
- ❖ Integrated advanced SSIS parallelism techniques and memory buffers to boost ETL data flow efficiency.
- ❖ Enhanced Databricks platform communication with tailored serializers/deserializers for cross-system compatibility.
- ❖ Coordinated with analysts to translate business enrichment logic into structured transformation rules for analytics.
- ❖ Extended metadata governance in Purview by automating catalog maintenance through direct API usage.
- ❖ Customized ADF reporting views to fuse operational metrics with analytical dashboards in a single pane.
- ❖ Connected Tableau visuals to narrative flows that walk users through data-driven stories with clarity and purpose.
- ❖ Developed SSIS workflows that consume environment-specific configuration data for dynamic package execution.
- ❖ Engineered Azure Data Lake folder and file structures for optimal storage performance and fast file retrieval.
- ❖ Used lineage-aware Purview API calls to keep enterprise metadata continuously synchronized and accurate.
- ❖ Designed encryption key rollover strategies in Synapse using HSM services for continuous cryptographic protection.
- ❖ Structured automated SSRS subreport hierarchies to unify content within a cohesive analytic framework.
- ❖ Built SSRS subscription trees with secured data routing, simplifying report access across business hierarchies.
- ❖ Refined SSIS runtime settings to maintain efficient throughput under dynamic operational demands.
- ❖ Applied T-SQL scripting to develop purge and archive mechanisms that manage storage and maintain historical accuracy.
- ❖ Automated Power BI report dissemination through custom subscription logic tailored to stakeholder schedules.
- ❖ Maintained secure access for SSRS external data sources by encrypting and isolating credential storage.
- ❖ Aligned SQL Server replication procedures to maintain data consistency across geographically distributed environments.
- ❖ Constructed external system links in Snowflake using JDBC and ODBC drivers to enable seamless data tool integration.
- ❖ Partnered with dashboard teams to reshape SSAS cube outputs into highly responsive, user-friendly visuals.
- ❖ Architected normalized database schemas in SQL Server to optimize storage and enhance read/write performance.
- ❖ Enabled distributed transaction management in SQL Server, securing reliable commits across multi-database operations.
- ❖ Established fine-grained error tracing and execution logs in SSIS to support monitoring and issue resolution.

Role: Junior ETL Developer

Client: Cipla Ltd, Mumbai, IN

Duration: May 2019 - Aug 2020

Skills- Database Security, SSIS, Data Masking, Data Lineage, Metaheuristic Algorithms, SSRS, SSAS, SQL, Machine Learning, Data Synchronization, Performance Planning, Code Review

Responsibilities:

- ❖ Conducted security assessments on database systems using scripted validations to detect risks and strengthen defenses.
- ❖ Configured SSIS packages with adaptive environment parameters, ensuring seamless operation across multiple deployment stages.
- ❖ Created masking and obfuscation routines within SSIS to protect sensitive data in staging and test environments.
- ❖ Drafted comprehensive data flow diagrams and lineage records to maintain regulatory traceability and audit transparency.
- ❖ Employed metaheuristic algorithms—including swarm and evolutionary techniques—for high-dimensional data modeling.
- ❖ Enhanced SSRS report efficiency through the strategic use of cache snapshots to reduce query load and response lag.
- ❖ Architected secure row-level visibility controls in SSAS tabular models to ensure only permitted users access relevant data.
- ❖ Automated SSIS execution cycles with timed triggers, eliminating manual interventions and ensuring timely data updates.
- ❖ Built structured SQL database designs in partnership with solution architects to support scalable application development.
- ❖ Facilitated predictive BI by embedding machine learning outputs into business dashboards through close collaboration with data scientists.
- ❖ Implemented dataset synchronization logic to harmonize content across heterogeneous storage and processing systems.
- ❖ Led performance planning efforts by forecasting data scale trends and upgrading backend infrastructure accordingly.
- ❖ Oversaw peer-based code reviews to enforce best practices and uphold coding standards in SSIS workflows.