ARUN VIGNESH MURUGAIYAN

DATA ARCHITECT | BI & ANALYTICS LEAD

linkedin.com/in/arun-vignesh-murugaiyan-855a8b21

E:m.arunvignesh@gmail.com   P: (+1) 380-206-8862

PROFESSIONAL SUMMARY

- Dynamic **Data Architect and BI Leader** with over 15 years of experience in **data analytics, visualization, and cloud-based BI solutions** using **Power BI, Snowflake, Tableau, and SQL to** drive data-driven decision-making across global enterprises.
- Extensive expertise in **Power BI, Tableau (Desktop, Server, and Service), ThoughtSpot, SQL, NoSQL, and Snowflake** for building scalable, **enterprise-grade analytics solutions**, including **interactive dashboards** and **KPI-driven reports** that deliver actionable insights for informed business decision-making.
- Designed and optimized data models using **Star Schema, Snowflake Schema, and Dimensional Modeling** techniques for performance and scalability.
- Hands-on experience implementing **Row-Level Security (RLS)** and integrating data from multiple sources, with strong proficiency in **DAX, Power Query, table calculations, parameters**, and **advanced visualization** techniques to deliver dynamic, actionable, and responsive reporting solutions.
- Led the **migration of 200+ dashboards** from Tableau to Power BI and enhancing accessibility and performance.
- Strong backend expertise **in SQL, NoSQL, and Snowflake**, with advanced skills in **stored procedures, views, CTEs, window functions, and query optimization**.
- Hands-on experience **in Cloudera/Hadoop ecosystem (Hive, Impala, Spark, HDFS, Sqoop)** for processing large-scale **structured and semi-structured datasets.**
- Built and automated **ETL pipelines** using **SSIS** and **Azure Data Factory (ADF)** with robust error handling, scheduling, and data quality controls.
- Delivered **search-driven analytics** using **ThoughtSpot**, empowering users with **AI-powered Natural Language Query (NLQ)** and self-service insights.
- Designed and implemented **Document AI solution in Snowflake** for automated invoice extraction, classification, and validation—enhancing financial accuracy and efficiency.
- Improved **query performance by 30%** through indexing, clustering, execution plan tuning, and Snowflake optimization techniques.
- Well-versed **in Data Warehousing principles, SCD (Slowly Changing Dimensions), Data Governance,** and **performance tuning** for enterprise-scale BI environments.
- Experienced in **Generative AI, NLQ, and Agentic AI** to transform static reports into proactive, intelligent insights for business users.
- Proven ability to **lead cross-functional teams**, manage **Agile delivery**, and translate analytics strategy into measurable business outcomes.
- Industry exposure across **retail, supply chain, healthcare, insurance, and manufacturing**, driving data-centric decision-making and digital transformation.

TECHNICAL SKILLS

Business Intelligence & Reporting:
Power BI, Tableau Desktop (7.x–2024.x), Tableau Server, Report Builder, SSRS, Tabcmd, ThoughtSpot

Databases & Cloud Platforms:
SQL Server (2008–2016), Snowflake, SAP HANA, Cloudera (Hive, Impala, Spark)
ETL & Performance Optimization:
SSIS, Azure Data Factory (ADF), SQL query tuning, execution plan analysis, data pipeline orchestration
Data Modelling & Governance:
Star schema, Snowflake schema, Dimensional Modelling, Row-Level Security (RLS), Data Warehousing, Data Quality & Governance
Programming & Analytics:
Python (Pandas, NumPy, Matplotlib, PySQL), C#, DAX, Power Query, Table Calculations
AI & Advanced Analytics:
Generative AI, Natural Language Query (NLQ), Agentic AI Analytics, Document AI (Snowflake)
Project & Team Management:
Agile, Cross-functional Team Leadership, Stakeholder Collaboration

PROFESSIONAL EXPERIENCE

Ark Infotech (NIH)
BI Project Lead | Mar 2025 to Till Date

- Designed and optimized end-to-end BI solutions that delivered real-time, data-driven insights across business functions. Built scalable dashboards and data models in Power BI and Snowflake, ensuring accuracy, consistency, and performance. Streamlined data preparation processes to improve data quality, and developed impactful visualizations that empowered leadership with actionable insights for strategic decision-making.
- Built and optimized Snowflake data models and SQL stored procedures, handling large records, with real-time data ingestion using Snowpipe from Amazon S3, ensuring high-performance and scalable analytics.
- Designed and automated end-to-end ETL pipelines with Snowflake, Snowpipe, and PySpark, enabling real-time data ingestion, improving data accuracy, and reducing manual preparation efforts while accelerating availability of analytics-ready datasets.
- Developed and implemented Power BI dashboards with Incremental Refresh, composite models, and DAX optimizations, reducing dashboard load times by 55% and improving user adoption.
- Implemented automated workflows using Power Automate to trigger alerts and email notifications, ensuring timely delivery of analytics insights to stakeholders.
- Integrated REST API data sources and SAP extracts into Snowflake pipelines, ensuring seamless synchronization of external business systems for unified enterprise reporting.
- Conducted performance tuning and query optimization in Snowflake using clustering, micro-partition pruning, and caching strategies, improving warehouse efficiency and reducing compute costs by 20%.

Environment: Power BI, Snowflake, SQL, Power Automate, AWS S3

RR Donnelley (Client: Coca-Cola Southwest Bottlers)
Project Lead | Mar 2021 - Feb 2025

- Led development and architecture of Power BI, Tableau, and ThoughtSpot dashboards, designing semantic data models and enterprise-grade, scalable reporting frameworks to enhance tracking of sales, inventory, and key business KPIs aligned with strategic goals.
- Worked on migration of dashboards from Tableau to Power BI and database migrations (e.g., SAP HANA to Snowflake) and optimized data storage and retrieval processes
- Designed and developed Snowflake data models and views, creating custom SQL queries and performing end-to-end data preparation, cleansing, and transformation to optimize query performance and ensure accurate, reliable reporting.
- Developed ThoughtSpot solutions by designing AI-powered Live boards, SpotIQ and reusable analytics objects using ThoughtSpot Modelling Language (TML). Worked on Power BI to ThoughtSpot migration, enhancing adoption of search-driven, self-service analytics.

- Designed and automated end-to-end ETL pipelines with Snowflake, Snowpipe from Amazon S3, and PySpark, enabling real-time data ingestion, improving data accuracy, and reducing manual preparation by 30+ hours per month while accelerating availability of analytics-ready datasets.
- Implemented Row-Level Security (RLS), advanced DAX calculations, Tableau calculations, optimized Power BI mobile layouts, and refresh process to deliver user-friendly and secure reporting solutions.
- Applied UX design and accessibility standards to Power BI dashboards, ensuring intuitive navigation and clarity for diverse audiences.
- Provided strong technical and people leadership to a 10-member analytics team, ensuring project alignment with business strategy and client objectives.
- Designed and implemented a Document AI solution using Snowflake to process structured and unstructured invoices, enabling automated data extraction and validation. Integrated the processed data into Power BI dashboards for real-time reporting on invoice trends, payments, and exceptions.
- Ensured data accuracy and governance by resolving discrepancies between reports and source systems, enforcing security protocols for sensitive data, and providing end-user training for self-service analytics, while maintaining comprehensive technical documentation, user manuals, and best practices for clear, accessible guidance.

Environment: Power BI, Tableau 2020.x – 2024.x, Tableau Server, ThoughtSpot, Snowflake, SAP HANA, AWS

RR Donnelley (Client: Hilton Hotels)
TechLead | Mar 2020 - Feb 2021

- Developed Power BI and Tableau dashboards to deliver real-time insights into bookings, sales, occupancy, and KPIs.
- Integrated Power BI dashboards with SharePoint Online to enable seamless report access, collaboration, and version control for business stakeholders.
- Implemented Row-Level Security (RLS) in Tableau for secure multi-property reporting and automated recurring reports using Tabcmd, managing end-to-end data preparation, cleaning, and transformation
- Automated recurring reporting using Tabcmd and handled complete data preparation, cleaning, and transformation.
- Led from the front, guiding a 5-member team through complex BI, ETL, and data integration projects with a focus on quality, timeliness, and innovation.
- Administered Tableau Server, managing user access, content deployment, and performance tuning.

Environment: Tableau 2018.3, Power BI Desktop, SQL Server2016, Tableau Server, SSIS, Tabcmd, SharePoint

RR Donnelley (Client: The Home Depot)
TechLead | Apr 2018 - Mar 2020
- Designed and developed Tableau dashboards to support merchandising performance and store management decisions.
- Engineered SQL data models and optimized queries, while building and maintaining SSIS-based ETL workflows to integrate data from multiple retail systems into a unified reporting layer.
- Performed comprehensive data cleansing, transformation, and validation to ensure data consistency across forecasting and inventory datasets.
- Collaborated with business stakeholders and led a team of 5 members to align reporting outputs with operational and analytical needs, ensuring accuracy, relevance, and timely delivery.

Environment: Tableau 2018.1, SQL Server 2008,2016, Tableau Server, SSIS

RR Donnelley (Client: USPS - United States Postal Service)
Senior Software Consultant | Jul 2017 - Mar 2018

- Designed and developed interactive Tableau dashboards aligned with USPS business and operational metrics and also Engaged with stakeholders to gather requirements and analytical needs
- Developed ETL workflows using SSIS and optimized SQL data models and complex queries to support performance and scalability of reports.
- Conducted comprehensive data profiling, cleansing, transformation to ensure integrity across systems.

Environment: Tableau 10.4, SQL Server 2008,2016, Tableau Server, SSIS

RR Donnelley (Client: AWR - American Water Resources)
Senior Software Consultant | Jun 2015 - Jul 2017

- Developed interactive Tableau dashboards to deliver real-time business insights across departments.
- Designed and optimized SQL data models, views, and queries to support high-performance analytics.
- Built and managed ETL pipelines for seamless data integration and transformation from multiple systems.
- Implemented secure, role-based access in Tableau to ensure data confidentiality and compliance.
- Executed complete data preparation, including profiling, cleansing, and transformation, to maintain data integrity.
  Environment: Tableau 8.X, SQL Server 2008,2016, Tableau Server, SSIS, MS Excel

Techzone Pvt Ltd (MTN Mobiles)
Senior Software Engineer | Jul 2012 – Apr 2015

- Designed and optimized SQL queries, stored procedures, and views for efficient data retrieval, transformation, and validation across large datasets.
- Built and maintained ETL workflows using SSIS, ensuring accurate, scalable, and high-performance data integration from multiple sources.
- Developed interactive dashboards using Tableau and ASP.net to support business decision-making.
- Collaborated with business stakeholders to gather requirements and translate them into actionable insights.
- Performed data cleaning, validation, and reconciliation to ensure accuracy, consistency, and reliability of datasets used in dashboards and reports.
- Conducted performance tuning of SQL, Tableau extracts, and workbooks to improve data processing and dashboard load times. Troubleshot and resolved data discrepancies between Tableau reports and source databases.
- Maintained data governance and security measures while handling sensitive business data.
- Provided training and support to business users for self-service analytics in Tableau.

Environment: Tableau, SQL Server 2008,2016, Tableau Server, C#, SSIS, ASP.net

NewWplatform Technologies (IndusInd Bank)
Software Developer | Mar 2010 – Jul 2012

- Led ASP.NET web application development for managing customer details and generating analytical reports to monitor call center activities.
- Developed and optimized SQL stored procedures, queries, and views to streamline data processing, improve performance, and support scalable reporting solutions
- Designed and implemented ETL workflows using SSIS for efficient extraction, transformation, and loading of data from multiple sources.
- Automated data pipelines to reduce manual intervention, improve data accuracy, and ensure real-time availability for reporting and analytics.
- Conducted data cleaning, validation, and reconciliation to ensure reliability of datasets feeding dashboards and reports.
- Developed SSRS reports and integrated IVR call flows for both inbound and outbound call tracking.
- Troubleshot and debugged ETL workflows and application bottlenecks to maintain high-performance data and reporting systems.
- Integrated services for both inbound and outbound calls within a call center environment.

Environment: Visual Studio 2008, SQL Server 2008, Aspect IVR, SSRS, SSIS, C#

EDUCATION

B.S. Computer Science and Engineering - 2008, Tamil Nadu, India