AKHIL DEVABHAKTHUNI

Senior Data & Analytics Engineer

Power BI • Semantic Modeling • Cloud Analytics • Analytics Engineering

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Summary

- Senior Data & Analytics Engineer with 9+ years of experience building scalable, enterprise-grade analytics platforms across Azure, AWS, and Microsoft Fabric.
- Expert in Power BI, including semantic modeling, advanced DAX, incremental refresh, and object-level security, with a strong track record of delivering executive dashboards and governed reporting solutions that support data-driven decision-making.
- Specialized in designing end-to-end cloud analytics platforms, including ETL/ELT pipelines, lakehouse architectures, dimensional modeling, and semantic layers optimized for reporting and self-service analytics.
- Experienced in modern analytics engineering practices spanning cloud data platforms, analytics modernization initiatives, KPI governance, and executive reporting.
- Combines deep technical expertise with strong business and stakeholder alignment to build analytics systems that are scalable, reliable, and decision-focused.

Professional Experience

Senior Data & Analytics Engineer

MetricMend (Independent Project) Oct 2025 – Present

- Designed and implemented end-to-end analytics pipelines in Databricks, including ingestion, transformation, dimensional modeling, and curated analytics layers.
- Built medallion-style data architectures (Bronze, Silver, Gold) to support scalable reporting, semantic modeling, and downstream analytics workloads.
- Developed data engineering workflows integrating cloud storage, transformation pipelines, and governed analytics datasets to support AI-driven analytics and business reporting.
- Built AI-assisted analytics workflows that translate business questions into structured insights, recommendations, and visualizations.
- Developed a conversational analytics experience supporting natural-language queries, follow-up interactions, and contextual conversation history.

- Implemented a governed semantic layer to ensure consistent metric definitions and trusted reporting outputs.
- Designed and developed full-stack platform architecture spanning frontend applications, backend services, API orchestration, semantic modeling, and analytics workflows.
- Integrated automated visualization generation, KPI summarization, and insight delivery to support business decision-making.
- Designed role-based access and approval workflows to support secure and governed analytics access.
- Designed a flexible execution framework capable of supporting multiple analytics processing engines and scalable compute patterns.
- Evaluated and implemented lakehouse-oriented analytics patterns aligned with modern cloud data platforms including Databricks, distributed processing, and large-scale analytics workloads.
- Deployed and maintained a live production application demonstrating modern analytics, semantic modeling, and AI-driven decision-support capabilities.

AWS Lakehouse Analytics Project

AWS End-to-End Lakehouse Implementation | Apr 2025 – Sep 2025

- Designed and implemented a **production-style AWS lakehouse architecture** using Amazon S3 with **Bronze, Silver, and Gold layers** for scalable analytics processing
- Built **incremental data ingestion pipelines** using Python (pandas, boto3, awswrangler), enabling efficient handling of continuously arriving datasets
- Structured raw data ingestion into **append-only Bronze layer with timestamp-based partitioning**, ensuring replayability and auditability
- Developed transformation pipelines to standardize and cleanse data into **Silver layer**, applying schema enforcement and data quality checks
- Engineered **Gold-layer star schema datasets (fact & dimension tables)** optimized for analytical workloads and BI consumption
- Implemented **data partitioning and Parquet optimization strategies**, significantly improving query performance and reducing scan costs in Athena
- Configured **AWS Athena external tables and metadata layer**, enabling serverless SQL querying over S3-based datasets
- Designed **data modeling strategy aligned with BI consumption**, ensuring seamless integration with Power BI dashboards
- Integrated Athena with Power BI to deliver **interactive dashboards powered by cloud-hosted analytics data**
- Built reusable **S3 ingestion utilities and modular ETL components**, improving pipeline maintainability and extensibility
- Applied **data engineering best practices** including modular pipeline design, separation of layers, and clear data lineage
- Simulated **real-world enterprise use case (sales analytics)** including customers, products, orders, and revenue metrics

Senior Data & Analytics Engineer

Promethean World | Oct 2022 - Mar 2025

- Led enterprise modernization of analytics platform, migrating legacy **SSIS ETL → Azure Data Factory → Microsoft Fabric**, improving scalability, reliability, and maintainability
- Designed and implemented a **cloud-native data platform architecture** using Azure and Microsoft Fabric, establishing standardized ingestion, transformation, and analytics layers
- Built and managed **Bronze / Silver / Gold lakehouse architecture**, enabling scalable and structured data processing for enterprise analytics
- Developed and optimized **ADF pipelines and Fabric Data Pipelines/Dataflows Gen2** with parameterization, triggers, and robust error handling to reduce operational failures
- Architected and owned **end-to-end cloud data platform**, including ingestion, transformation, storage (OneLake), and analytics consumption layers
- Built and owned **Power BI semantic models and executive dashboards** used by Sales and Marketing leadership for decision-making
- Developed advanced **DAX measures and time intelligence logic** (YTD, rolling 12 months, YoY comparisons, pipeline trends)
- Implemented **incremental refresh and dataset optimization**, significantly improving dashboard performance and scalability
- Designed **enterprise-grade reporting solutions** with **role-based security (RLS)** and governed datasets
- Enabled **self-service analytics** by publishing certified datasets and reusable semantic layers across business teams
- Designed **star-schema data models (fact & dimension)** to support scalable reporting and semantic layer consistency
- Migrated legacy **Cognos reports → Power BI & Tableau**, improving reporting accuracy and user adoption
- Standardized **business KPIs across Sales and Marketing**, ensuring consistent metric definitions across reports
- Implemented **data governance practices**, including workspace management, dataset certification, and access control policies
- Mentored team members on **Azure Data Factory, Microsoft Fabric, and modern data architecture best practices**
- Partnered with cross-functional stakeholders (Sales, Marketing, Operations) to deliver **data-driven insights and reporting solutions**
- Owned **end-to-end analytics lifecycle**, from data ingestion to executive reporting and governance

Senior BI Engineer

KinderCare Education | Jan 2019 – Oct 2022

- Designed and built **enterprise-scale Power BI semantic models**, replacing legacy SSAS cubes using star-schema architecture
- Developed advanced **DAX measures and KPI frameworks**, including fiscal calendars, time intelligence (YTD, YoY, rolling periods), and business-driven metrics
- Built and maintained **Power BI datasets and Dataflows**, enabling scalable **self-service analytics** across multiple business units
- Implemented **incremental refresh strategies**, significantly improving dataset performance and reducing refresh times
- Optimized report performance using **DAX Studio, query tuning, and indexing strategies**
- Implemented **Object-Level Security (OLS)** and managed dataset-level access controls for secure enterprise reporting
- Designed and maintained **data validation and monitoring dashboards** to ensure pipeline accuracy and reporting reliability
- Established **governed reporting practices**, ensuring consistency in metric definitions and access control
- Designed and optimized **SSIS ETL pipelines**, supporting ingestion from OLTP systems into analytical warehouse environments
- Implemented **incremental data processing strategies** to improve pipeline efficiency and scalability
- Partnered with infrastructure and DevOps teams to **automate deployment pipelines** using Bamboo, Octopus, and PowerShell
- Improved reporting performance through **SQL tuning, indexing, and profiler-based optimizations**

BI Developer

KinderCare Education | Sept 2017 – Dec 2018

- Developed **SSIS ETL pipelines** to move data from OLTP systems into analytical warehouse environments
- Designed and deployed **SSRS reports** with dynamic parameters and matrix reporting features
- Built stored procedures, functions, and automation workflows to support reporting operations
- Contributed to **star-schema data model enhancements** to improve query performance and reporting consistency

TECHNICAL SKILLS

Cloud & Data Platforms

Microsoft Fabric, Azure Data Factory, Azure SQL, SQL Server, AWS (S3, Athena), Databricks

Data Engineering & Analytics Engineering

SSIS, Fabric Data Pipelines, Databricks Workflows, Python (ETL/ELT), Incremental Loading, Medallion Architecture (Bronze/Silver/Gold), Data Transformation & Orchestration

Business Intelligence & Analytics

Power BI (Semantic Models, DAX, Incremental Refresh, OLS), Tableau (LOD Expressions, Dashboard Design, Performance Optimization), Executive Reporting, KPI Governance

Data Modeling & Semantic Layer Design

Star Schema, Snowflake Schema, Dimensional Modeling, Fact & Dimension Design, Semantic Modeling, Business Metrics & KPI Frameworks

Programming & Query Languages

SQL, T-SQL, DAX, Python, PowerShell

Methodologies & Tools

Agile (Scrum), Jira, Tabular Editor, DAX Studio, Git, GitHub

AI & Modern Analytics

OpenAI Integration, Conversational Analytics, Natural Language Query Processing, AI-Assisted Analytics