

Mahadharsan Ravichandran

Analyst Engineer

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SUMMARY

Analytics Engineer with 2+ years of experience designing scalable data warehouse + dbt data models that power executive reporting and self-serve analytics. Built analytics-ready warehouses and reusable metrics layers across enterprise environments, delivering \$1M+ integration initiatives and \$200K+ in operational savings through optimized SQL transformations and reliable ELT architecture.

WORK EXPERIENCE

Waste Management

May 2025 - Aug 2025

Data Analyst Engineer

Hartford, CT

- Designed Snowflake SQL transformations to integrate 500K+ acquisition records, build \$1M GotJunk post-merger reporting analytics pipeline
- Developed reusable, documented data models to standardize operational KPIs across 10+ stakeholders, reducing reporting inconsistencies
- Optimized Snowflake transformation logic and query performance by 30%, improving reliability and refresh times of downstream dashboards
- Built and maintained stakeholder-facing reporting assets, enabling self-serve operational analytics and reducing 120+ reporting hours per quarter
- Partnered with business teams to clarify metric definitions and implement sustainable fixes for data discrepancies

Formlabs

Sep 2024 - Dec 2024

Data Analyst Engineer

Boston, MA

- Designed analytics-ready BigQuery SQL models to track 10K+ manufacturing test runs, defining standardized metrics across operations teams
- Built reusable datasets powering real-time Looker dashboards, improving failure detection speed and increasing production yield by 20%
- Developed anomaly detection framework using Python + SQL, integrating outputs into reporting models to support operational decisions
- Conducted structured A/B test analysis using defined experiment metrics, influencing elimination of 5-minute test and saving \$25K annually
- Partnered cross-functionally to align on KPI definitions and implement sustainable data improvements, driving 15% cost reduction

Cognizant

Oct 2021 - Nov 2022

Big Data Analyst Engineer

Chennai, IND

- Designed a star schema analytics warehouse for cosmetics sales data, modeling fact and dimension tables to support revenue reporting
- Built distributed data transformation pipelines using PySpark, HiveQL, and HDFS, processing 1M+ sales transactions into analytics-ready datasets
- Optimized Spark and Hive SQL queries to improve batch processing performance by 40%, enhancing downstream reporting reliability
- Developed PowerBI dashboards powered by structured warehouse models, enabling sales leadership to track KPIs across regions and products
- Partnered with business stakeholders to define metrics and ensure consistency between raw data, transformation logic, and reporting outputs

PROJECTS

B2B SaaS Revenue Analytics Pipeline | Snowflake, dbt, Airflow, Looker

- Built a Snowflake SQL-centric analytics warehouse and metrics layer to track churn, engagement, and retention cohorts
- Reduced churn by 15% in high-risk segments by surfacing actionable insights through dashboards
- Implemented Airflow-orchestrated ELT pipelines with dbt tests and alerts to ensure data reliability

Marketing Campaign Analytics Pipeline | Airbyte, GCP, Pyspark, Looker

- Transformed raw email, ad, and CRM logs into analytics-ready tables using PySpark + dbt, enabling reliable, reusable datasets for reporting
- Standardized metrics definitions across campaigns, reducing reporting discrepancies by 40%
- Built Looker dashboards to track campaign ROI and KPIs, enabling marketing team to optimize spend and make data-driven decisions

TECHNICAL SKILLS

Programming & Scripting - SQL (advanced), Python, R, Bash/Unix

Databases & Platforms - Snowflake, BigQuery, Redshift, Synapse, PostgreSQL, MySQL, SQL Server, PySpark, Redpanda

Analytics Engineering /ETL - dbt (Semantic Layer & Core), Airbyte, Fivetran, Airflow, Prefect, Dagster, Docker, Git, Git Actions

BI / Dashboard Tools - Tableau, Looker, Power BI, Spotfire, Superset, Google Data Studio

AI & Orchestration - LangGraph, Gemini API, Prompt Engineering, Agentic AI, RAG, ChromaDB

EDUCATION

Northeastern University

Jan 2023 - Dec 2025

Master of Science, Data Science, GPA 3.97

Boston, MA

CERTIFICATION & EXTRACURRICULAR

- AWS Certified Cloud Practitioner - [Link](#)
- 100+ Citations in Google Scholar - [Publications](#)
- 2025 USA Northeastern Regional Taekwondo - Silver Medalist | 2025 USA Nationals Taekwondo - Bronze Medalist