# Aishwariya Alagesan

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Data Analytics Engineer with 3+ years of experience analyzing complex datasets and building Tableau dashboards, SQL queries, and cloud-based pipelines. Skilled in delivering actionable insights in fintech and healthcare domains.

### Education

### **Northeastern University**

Boston, MA

Master of Science in Data Analytics Engineering (GPA – 3.9/4.0)

Sep 2023 - May 2025

Relevant courses: Data Management, Computation and Visualization, Machine Learning Operations, Data Mining.

# **Work Experience**

### **Temenos Pvt Ltd**

Chennai, TN

### Analytics Product Engineer

Jan 2022 - Jul 2023

- Automated data transformation of 100K+ banking records using **Airflow** pipelines on **AWS**, reducing manual ETL effort.
- Deployed interactive **Tableau** dashboards tracking 5+ KPIs for 13 branches and account officers, which decreased manual reporting efforts by 60% and enhanced real-time operational performance tracking.
- Conducted financial analysis on 500+ high-value transactions using advanced **SQL** and **Excel** functions (VLOOKUP, Pivot Tables), identifying discrepancies and achieving a 90% error-free rate that strengthened audit readiness.
- Evaluated **A/B test** outcomes across 5 financial KPIs (e.g., transaction volume, average balance, loan application rate), providing insights that drove a 10% uplift in digital product adoption and improved operational efficiency.

**Product Engineer** 

Jan 2021 - Dec 2021

- Resolved 100+ critical product defects in **JBase**, collaborating with teams to reduce client issues and improve reliability.
- Collaborated with cross-functional teams, including Product, Engineering, and QA, in an **Agile** environment (via Jira), contributing to delivering defect solutions and workflows that drove a 15% increase in user adoption.

# **Cognizant Technology Solutions**

Chennai, TN

Data Analyst

May 2020 – Oct 2020

- Analyzed 40 K+ medical insurance claims using SQL, optimizing claims processing strategies, and reducing denial rates.
- Developed dashboards in **Tableau** to monitor adjudication trends, improving transparency in payer reimbursements.
- Created custom calculated fields to assess billing efficiency, contributing to a 15% improvement in claims resolution time.
- Collaborated with stakeholders to define key metrics, ensuring accurate tracking of claim processing performance.

### **Academic Projects**

# Impact of Covid-19 on Emergency Room Utilization using OSHPD Data (Python, SQL, Tableau)

Apr 2025 - May 2025

- Spearheaded the analysis of 5 years of California ER utilization data (100K records) using SQL, Pandas, and BigQuery, driving discovery of critical healthcare service patterns during and after the COVID-19 pandemic.
- Engineered features like mortality rates across 300+ hospitals using CTEs, window functions, and custom KPIs.
- Built Tableau dashboards to visualize ER trends, payer mix, and outcomes, supporting data-driven healthcare decisions.

# Health Insurance Claims Analytics Dashboard (<u>Dashboard</u>)

*Mar 2025 - Apr 2025* 

- Developed an analytics pipeline using AWS S3, Snowflake, DBT, and Tableau to process 5K+ claims records.
- Created DBT models to calculate denial rates, payment ratios, and identify high-risk claims by provider and insurance.
- Built an interactive Tableau dashboard with filters to analyze claim outcomes, follow-ups, and procedure-level trends.

### End-to-End MLOps Pipeline for Term Deposit Prediction (GCP, Airflow, Docker, BigQuery)

Nov 2024 - Dec 2024

- Built scalable MLOps pipeline for bank deposit prediction, achieving 87% accuracy and processing 45K+ records on GCP.
- Automated data pipelines using Airflow and Docker, reducing preprocessing time by 30% and ensuring data validation.
- Implemented CI/CD with GitHub Actions, enabling faster retraining and maintaining 92% precision and recall.
- Deployed models on GCP with monitoring for data drift and fairness, enabling real-time predictions via Flask API.

### **Technical Skills**

Programming Languages: Python (Pandas, NumPy, Matplotlib, Scikit-learn), MySQL, SQL Server, PostgreSQL.

Analytics Tools: Tableau, Power BI, Looker Studio, dbt, Excel (VLOOKUP, Pivot Tables, Power Query).

Cloud and Big Data Technologies: AWS, GCP, Snowflake, Redshift, BigQuery.

Certifications: Google Business Intelligence Professional, AWS Cloud Practitioner, Alteryx Designer Core.