

# Partham Solanki

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## Skills

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**Data Analysis & BI:** SQL (BigQuery, MySQL), Python (Pandas, NumPy, Matplotlib, Jupyter), Excel (Advanced), R (Rstudio, ggplot2), Tableau, Power BI

**Dev & Collaboration Tools:** Git (Github, GitLab), Linux (Shell scripting)

**Cloud & Automation Tools:** Azure (Data Studio, Synapse, Storage), AWS (S3, Redshift, Lambda), GCP - Data storage and pipelines

## Projects

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### SQL Data Cleaning & Exploratory Analysis (Goodreads Books Dataset)

Cleaned and standardized a dataset of 10,000+ books, then performed SQL-based exploratory analysis to uncover trends in ratings, publishers, and languages.

- Removed duplicates and standardized author/publisher fields; converted dates to appropriate datatype.
- Applied CTEs, window functions, and aggregations to rank top books by year and publisher.
- Identified trends in book popularity, ratings distribution, and publisher performance.

### HR Analytics and Visualization Project

Designed and built a comprehensive HR analytics dashboard in Excel, transforming raw data into actionable insights on key workforce metrics like attrition, salary distribution, and employee satisfaction.

- Cleaned and prepped raw HR data, creating custom metrics and dynamic pivot tables for detailed analysis.
- Built a single-page, interactive dashboard with visualizations to centralize and simplify complex HR data.
- Identified key workforce trends to support data-driven decisions on retention, compensation, and employee well-being.

### Fraud Detection Model

Developed a LightGBM model on a 200k-sample of 6.3M transactions to detect fraudulent activity, with workflow accelerated using AI-assisted research and coding support; engineered balance-delta and log-amount features, addressed extreme class imbalance (scale\_pos\_weight  $\approx 456.3125$ ), and achieved strong ranking performance (PR-AUC = 0.0274); interpreted model with SHAP and delivered actionable prevention recommendations.

## Education

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**LPU** 2025 – 2027

*M. Sc. in Mathematics*

- Electives: Finance

**MDU** 2023 – 2025

*B. Ed. in Physical Science & Mathematics*

**Ramjas College, DU** 2019 – 2022

*B. Sc. (Hons) in Physics*

- Electives: Mathematics

**Google** 2025 – 2025

*Professional Certificate in Data Analytics*

## Summary

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My lifelong love of mathematics led me to earn a B.Sc. (Hons) in Physics, and a brief foray into teaching gave me clarity to refocus on data—so I completed the Google Data Analytics certification to pursue analytics full time. Since then, I've been building hands on projects to showcase my SQL, BigQuery, and Tableau expertise while expanding my toolkit with Docker, python and advanced analytics techniques. I'm eager to apply this skill set to deliver actionable insights and drive data-informed decisions in a full-time role, while continuing to grow within a collaborative data team.