

# Partham Solanki

✉ partham.solanki@outlook.com    ☎ 082874 03262    📁 partham-solanki    🌐 ParthamSolanki

## 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  $\approx$  530), and achieved strong ranking performance (PR-AUC = ); 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*

- Percentage: 72.9%

### Ramjas College

2019 – 2022

*B. Sc. (Hons) in Physics*

- GPA: 8.6/10.0
- Electives: Mathematics