

# Parimal Sawant

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## Education

### Technological University of the Shannon

*Master's of Science in Data Analytics*

Athlone, Ireland

2024 – 2025

**Percentage:** 76.11% (1:1 First Class Honours)

**Modules:** Relational Databases, Programming for Data Analytics, Data Analytics, Statistics for Data Analysis, Interpretation of Data, Advanced Analytics, Research Methods, Advanced Databases, Data Visualisation, Applied Research Project

### Saraswati College Of Engineering

*Bachelor's of Engineering in Information Technology*

Navi Mumbai, India

2018 – 2021

**Percentage:** 72.31% (First Class)

**Modules:** Data Structures, Database Management Systems, Probability & Statistics, Algorithms, Machine Learning, Big Data Analytics, Cloud Computing; etc.

## Professional Experience

### Senior Data Analyst, Research & Insights

*Merkle (a Dentsu company)*

Sept 2021 – August 2024

Thane, India

- Led an ad-hoc data analysis project that uncovered key insights, converting a one-time research study into a long-term client engagement and generating an additional \$1M in annual revenue.
- Managed end-to-end execution of multiple data analytics projects for Fortune 500 clients, ensuring 100% on-time delivery and improving reporting accuracy by 15% through rigorous quality control.
- Executed data capture processes and performed real-time troubleshooting across multiple live survey projects, achieving 98% data accuracy and delivering timely insights to stakeholders.
- Built SQL-backed Tableau dashboards for tracking NPS/CSAT and study KPIs (completion, dropout, incidence), which cut manual reporting time by 60% and enabled weekly exec reviews.
- Trained and mentored 4+ new analysts, onboarding them to tools and best practices which improved team productivity and capability.
- Extracted raw data from multiple platforms and performed frequency analysis, cross-tabulations, and custom analytics using tools such as Excel, SPSS, and Python.
- Performed hypothesis testing (t-tests, chi-square, ANOVA) and A/B comparisons on stimuli and questionnaire flows; quantified lifts and confidence intervals for client decisions.
- Designed and implemented advanced survey data collection workflows using Confrimit and Qualtrics (with complex branching logic and dynamic content), which improved data validation and reliability. These innovations increased overall data reporting precision by 15%.
- Collaborated cross-functionally with clients, researchers, and engineers to translate business requirements into technical analytics specifications (data models, dashboards, reports), ensuring solutions aligned with strategic objectives.
- Translated findings into executive KPI dashboards (Tableau/Power BI) and wrote insight narratives that improved stakeholder adoption and cut ad-hoc requests by 30%.
- Conducted data cleaning, validation, and quality checks to ensure accuracy, consistency, and completeness across multiple sources. Monitored ongoing projects, troubleshooting response issues, and ensuring timely data capture.
- Built automated data pipelines and ETL utilities in Python (Pandas) and Excel (VBA macros) to eliminate repetitive tasks and standardize analytics processes, saving 10 hours per week in manual effort.
- Optimised complex SQL queries (in MySQL and PostgreSQL) across large datasets to derive insights and generate business reports, improving reporting efficiency by 20%.

## Selected Projects

### • Predictive Maintenance of Renewable Plants using Digital Twins - Master's Capstone Project

Implemented predictive maintenance using digital twins for wind and solar assets, combining time-series forecasting and machine learning to predict anomalies and schedule proactive interventions; this reduced downtime by 30% and cut operational costs by 45%. Models included classical forecasting, recurrent neural networks, and PatchTST on high-frequency sensor data (vibration, temperature, power output), improving early-warning accuracy and fault classification. Generation forecasts were integrated into operational dashboards to inform dispatch and curtailment, improving supply-demand balancing, bid strategies, and revenue capture.

*GitHub:* <https://github.com/parimal1998/Predictive-Maintenance-of-Renewable-Plant-Using-Digital-Twins>

- **Delivery Performance Analytics Dashboard – Zomato Operations (Tableau Project)**

Designed an interactive Tableau dashboard analysing 75,000+ delivery records to surface operational drivers such as weather, traffic, and vehicle condition affecting efficiency. Performed rigorous cleansing and transformation, including null handling, geospatial enrichment, and standardisation, to create reliable datasets for time-series analysis and KPI visualisation. Delivered actionable recommendations by visualising delivery KPIs, enabling Zomato stakeholders to optimise speed of service, plan regional expansion based on demand patterns, and advance sustainability initiatives through route and resource efficiency.

*Live:* <https://tinyurl.com/257xe4d2>

- **Relational & NoSQL Data Analysis – Scholarship Sponsors (SQL & MongoDB)**

Implemented relational and NoSQL models to analyse 1,000+ scholarship records, integrating sponsor, university, and award details with SQL and MongoDB. Built advanced analytical SQL using window functions (OVER with PARTITION BY, ORDER BY, LAG, LEAD) to extract trends and run comparative cost/distribution analyses. Leveraged MongoDB Aggregation Framework stages (\$match, \$group, \$unwind, \$facet, \$bucket) to produce granular sponsorship insights and delivered custom dashboards in MongoDB Atlas for stakeholder-ready reporting and decision-making.

*GitHub:* <https://github.com/parimal1998/Aggregation-Pipelining-using-MongoDB>

## Skills

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- **Programming & Analysis:** Python (Proficient), SQL (Advanced), R (Proficient), Excel (Advanced), Machine Learning (scikit-learn, TensorFlow), Data Analytics, Jupyter, Regex/JSON/CSV parsing.
- **Data Visualisation Tools:** Tableau (Expert), Power BI (Proficient), AWS QuickSight (Proficient); Matplotlib, Seaborn, Plotly.
- **Databases:** MySQL, PostgreSQL, MongoDB, SQLite, Snowflake, AWS Redshift, BigQuery, Advanced SQL, Data Modeling, Stored Procedures/Views.
- **Core Analytics/Stats:** Exploratory Data Analysis (EDA), Hypothesis Testing (t-test, chi-square), ANOVA, Regression, A/B Testing, Confidence Intervals.
- **Tools/Others:** Git, Docker, Visual Studio Code, Data Validation/QA, GDPR/PII handling, Confluent, Qualtrics (survey platforms), ETL & Data Pipeline Development, Agile/Scrum methodology; strong stakeholder communication.

## Certifications

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- Microsoft Excel (Advanced Excel from Beginner to Advanced)
- Microsoft Power BI (Business Intelligence Fundamentals)
- Python for Data Science & Machine Learning (Bootcamp)

## Leadership & Innovation

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- 2nd Place – Avishkar National Project Competition: Achieved runner-up among 50+ projects for an innovative tech solution (2019).
- General Secretary & President, Student Union (2019 – 2020): Led a 70-member team to organize college events and initiatives; achieved a 9.7/10 student satisfaction rating for overall activities.
- Smart India Hackathon Finalist (2018): Selected as one of the top teams nationally in a 36-hr hackathon, developing a prototype solution for social good.