Nirmal Raj

Data Scientist

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PROFILE

Aspiring Data Scientist with a strong foundation in data analysis, machine learning, and statistical modeling. Completed the Guvi Data Science course, gaining hands-on experience in working with large datasets (100K+ rows), feature engineering, and predictive modeling. Skilled in data cleaning, preprocessing, and automation to improve workflow efficiency. Passionate about leveraging data-driven insights to solve real-world problems.

SKILLS

Python │ SQL │ Data visualization │ Machine Learning │ MongoDB │ Power BI │ NumPy │ Scikit-Learn │ Statistics & Probability │ Matplotlib & Seaborn

PROJECTS

YouTube Data Harvesting and Warehousing using SQL and Streamlit,
Skills Used: Python, SQL, Streamlit, YouTube API, Pandas, ETL
- Developed a **Streamlit** application to **collect, analyze**, and **visualize** YouTube channel data using the **YouTube API**.
- **Extracted, transformed, and loaded (ETL)** data into a **PostgreSQL** database for efficient querying.
- **Optimized SQL queries** to improve data retrieval speed and enhance application performance.
- Analyzed **100K+ data points** to provide **actionable insights** for content strategy.

PhonePe Pulse Data Visualization and Exploration: A User-Friendly Tool Using Streamlit and Plotly,
Skills Used: Streamlit, Plotly, Python, Pandas, Data Visualization
- Developed an interactive **data visualization tool** using **Streamlit** and **Plotly** to explore **4-5 lakh PhonePe Pulse transactions**, highlighting **transaction trends** and **user behavior**.
- **Preprocessed** data for high-quality, accurate visualizations.
- Improved decision-making by **20%** through **interactive dashboards**.
- Enabled **100+ non-technical users** to easily explore and analyze data.

Customer Conversion Prediction - Insurance,
Skills Used: Python, Machine Learning, Pandas, Scikit-Learn, Data Preprocessing
- Developed a **predictive model** achieving **89.7% accuracy** on 45210 **customer records**.
- **Cleaned and preprocessed 100K+ customer data** for accurate predictions.
- Implemented and compared **Logistic Regression**, **Decision Trees**, and **Random Forest**, selecting the best-performing model.
- Evaluated performance with **precision (0.95)**, **recall (0.59)**, and **F1 score (0.58)** for reliable results.

CERTIFICATES

- Master in Data Science - Guvi
- Power BI - Guvi

EDUCATION

IIT-M Advanced Programming Professional & Master Data Science, *IIT-M GUVI*   2024 – 2025

Master of Science in Mathematics., *AVC college*   2019 – 2021

PROFESSIONAL EXPERIENCE

Journal Coordinator, *Technoarete Groups*   2023 – 2024
- Worked with large datasets of **client information**, analyzing purchasing patterns to identify key insights.
- Discovered that most customers preferred to buy journals in the **10K to 20K price range** and recommended focusing on this segment to drive sales.
- Collaborated with the team to implement this strategy, leading to a **200% increase in revenue** within 3-4 months.