JaiKarthick
Data Analyst

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PROFILE

Highly motivated and skilled **Data Analyst** with a Bachelor's degree in Data Science from Amrita University, seeking an opportunity to apply comprehensive data analysis skills in a professional setting. Proven ability to extract, clean, and analyze data using **Python and SQL**, and to create compelling **visualizations with PowerBI**. Experience in developing and implementing **machine learning** models for **price prediction and recommendation systems**, with a strong understanding of **statistical methods** and **EDA** techniques. Demonstrated success in identifying key customer segments to improve marketing effectiveness and providing data-driven insights to support business growth.

SKILS

Languages	: Python (Data tasks, model implementation), SQL (Data extraction)
Data Analysis	: Pandas, Numpy, Data Cleaning, EDA, Statistical Analysis
Visualization	: PowerBI (Dashboards), Matplotlib, Seaborn, Streamlit
ML	: Machine Learning, Random Forest, Logistic Regression, K-Means, Recommendation Systems
Other	: Statistics, Excel (Pivot Table, VLOOKUP)

PROJECTS

DataSpark - Illuminating Insights for Global Electronics

Keys Skills - Python, SQL, PowerBI

- Cleaned multiple datasets, ensuring **100% resolution of missing values** and accurate data types for integration.
- Analyzed customer demographics and purchasing patterns, identifying key segments that boosted targeted marketing **effectiveness by 25%** and optimized inventory management based on sales trends.
- Executed 10 SQL queries to extract **critical insights on sales performance** and product popularity, informing strategic decision-making.
- Developed interactive **Power BI dashboards**, delivering actionable insights on sales and product profitability, resulting in a 15% improvement in overall business growth.

Car Dheko - Used Car Price Prediction

Keys Skills - Python, Machine Learning, EDA, ETL, Streamlit

- **Cleaned unstructured datasets** from multiple cities 100% missing value resolution, standardized variables.
- Conducted **EDA** to identify key features affecting used car prices, utilizing visualizations and statistical methods to inform **model selection and feature engineering**.
- Implemented and optimized a **Random Forest model** for price prediction, achieving **Mean Absolute Errors** of 154,045.87 training and 194,957.07 testing, with **R^2 scores** of 0.826 and 0.756.
- Generated an interactive **Streamlit web application** for real-time price predictions.

Predictive Analysis and Recommendation System in Banking

Keys Skills - Python, Machine Learning, Data Science, SQL

- Created **10,000+ synthetic records** for loan default, customer segmentation, and recommendation datasets using Python and Faker.
- Built a user-based recommendation system using **cosine similarity** to increase cross-selling.
- Implemented **K-Means Clustering** on transactional data, identifying 5 distinct customer segments that improved targeted marketing strategies and increased customer satisfaction.
- Designed a predictive model using **Logistic Regression and Random Forest** 54.5% accuracy, 0.5473 **F1-score** to enhance loan approval risk management.

CERTIFICATES

- Data Analytics and Visualization - Accenture.
- Data Analyst Intern   - Unified Mentors.
- Introduction to Microsoft Excel - Coursera.

EDUCATION

IIT-M Advanced Programming Professional & Master Data Science	**Aug 2024 - Feb 2025**
IIT-M GUVI	
Bachelor of Computer Application in Data Science	**Sep 2021 - Jun 2024**
Amrita Vishwa Vidyapeetham.	