

# OMKAR BHOSLE

## Objective

Motivated and detail-oriented **Data Analyst** with a PG Diploma in **Big Data and Analytics**, skilled in **data visualization**, **predictive modeling**, and **data engineering**. Proven expertise in tools like **SQL**, **Python**, **Tableau** and **Power BI** coupled with a passion for solving complex data challenges. Demonstrated success in **optimizing workflows**, **extracting insights** and delivering actionable solutions across domains such as **aviation**, **e-commerce**, and **advertising analytics**. Ready to contribute to data-driven decision-making in **tech-driven industries**.

## Skills

### Programming Languages:

- Python (Pandas, NumPy, SciPy, Scikit-learn), SQL (MySQL, PostgreSQL)

### Data Visualization Tools:

- Tableau, Microsoft Power BI, Matplotlib, Seaborn

### Machine Learning Techniques:

- Supervised/Unsupervised Learning, Clustering, Feature Selection

### Data Manipulation:

- ETL (Extract, Transform, Load), Data Cleaning, Feature Engineering

### Database Management:

- MySQL, PostgreSQL

### Spreadsheet Analysis:

- Advanced Excel (Pivot Tables, Conditional Formatting, VLOOKUP)

## Projects

### FLIGHT FARE ANALYSIS AND PREDICTION – August 2024

- Developed a **flight price prediction model** using **Random Forest Regressor**, **K-Nearest Neighbors**, and **Decision Tree Regressor**, achieving a high **R<sup>2</sup> score of 96.08%** after performing **hyperparameter tuning**.
- Streamlined **data preprocessing** by implementing **automated scripts** for **data cleaning** and **encoding**, increasing **data processing capacity** by 200% while maintaining high accuracy.
- Conducted **Exploratory Data Analysis (EDA)** to explore relationships between features and flight prices, utilizing **Seaborn** for visualizing correlations and trends in the data.
- Conducted systematic adjustments in **hyperparameters** using **RandomizedSearchCV** on the **Random Forest algorithm**; achieved a reduction of **Mean Absolute Error (MAE)** by 15 units while improving model reliability in predictions across datasets.

### VEHICLE ADVERTISEMENTS ANALYSIS – June 2024

- Cleaned and pre-processed **vehicle advertisement data** by handling **missing values**, encoding categorical variables using **Label Encoding**, and extracting **brand information** from nested columns with **ast.literal\_eval**.
- Employed **Recursive Feature Elimination (RFE)** to select the most important features, improving model accuracy and computational efficiency by reducing the number of irrelevant or redundant features.
- Applied **K-means clustering** along with **Silhouette Score** and **Elbow Method** to determine the optimal number of clusters, segmenting users based on ad behaviour for more targeted **marketing strategies**.
- Analysed **geographical distribution** of vehicle ads and **monthly supply-demand trends**, uncovering key market dynamics and identifying potential areas for **pricing adjustments** and **growth opportunities**.

## ONLINE BOOK MANAGEMENT SYSTEM – April 2024

- Developed an **Online Book Management System** using **Stream lit** for the user interface and **Python** for backend functionality, streamlining book catalogue management and order processing.
- Integrated **MySQL** database for efficient management of **users, books, and orders**, implementing **CRUD** operations and user authentication features.
- Designed and implemented key features, including **user login, book catalogue, shopping cart, and order processing**, providing a seamless shopping experience.
- Ensured robust **data integrity** by incorporating **encryption standards** for secure **user data protection**, reducing unauthorized access attempts to zero during the analysis phase.

## Achievements

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- Earned **HackerRank Gold Badge** in SQL and Python, ranking in the top **10% globally**. ([HackerRank](#))
- Achieved a **90% accuracy rate** in solving challenges on LeetCode in Python and SQL ([LeetCode](#))
- Certified in **SQL and Python** on HackerRank, showcasing advanced technical proficiency. ([HackerRank](#))

## Education

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- **PG DIPLOMA IN BIG DATA ANALYTICS** – CDAC, Mumbai – August 2024
- **BACHELOR OF ENGINEERING** – Mumbai University, Mumbai – April 2022
- **HSC** – Maharashtra State Board, Mumbai – April 2017
- **SSC** – Maharashtra State Board, Mumbai – April 2015