Karsh Patel
Data Science / Machine Learning

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Karsh01 (Karsh Patel) · GitHub

PROJECTS

Melbourne Housing ML Project, https://github.com/Karsh01/Melb_Housing_Regression
- Developed a machine learning model to predict housing prices in Melbourne, using a comprehensive dataset that includes various features such as property type, suburb, and geographical data.
- Utilized Google Maps API for data cleaning and to enrich the dataset with geographical data such as distances to CBD and amenities.
- Experimented with multiple models (Linear Regression, Random Forest, XGBoost) and optimized them using cross-validation and hyperparameter tuning.
- Deployed the model using Flask, creating a web application for real-time price predictions with a user-friendly interface.

Sentiment Analysis on Qantas Airways Reviews, https://github.com/Karsh01/Sentiment_Analysis_QantasAirways
- Performed web scraping to extract reviews, ensuring a comprehensive dataset of customer opinions.
- Conducted various NLP tasks including text cleaning, tokenization, stemming, and lemmatization to prepare the data for analysis.
- Trained machine learning models (e.g., Logistic Regression, Naive Bayes, and Random Forest) to classify the sentiment of reviews as positive, negative, or neutral.
- Deployed the final model using Streamlit, creating an interactive web application for users to analyze the sentiment of Qantas Airways reviews in real-time.

Bank Churn Prediction Project, https://github.com/Karsh01/Bank_Customer_Churn
- Developed a machine learning model to predict customer churn for a bank using a dataset containing customer demographics, account information, and transaction history.
- Trained various machine learning models.
- Used cross-validation and hyperparameter tuning to optimize model performance and avoid overfitting.
- Deployed the final model using Flask, creating a web application that allows bank staff to input customer data and predict the likelihood of churn in real-time.

EDUCATION

Bachelor of Data Science, RMIT University   **Jan 2022 – Dec 2024**

SKILLS

Languages	Python, R, SQL
Libraries & Tools	Pandas, Numpy, Matplotlib, Seaborn, Plotly, Scikitlearn, PyTorch, Keras, NLTK, Flask, Beautiful Soup, Tableau, GIT, GitHub
Data Wrangling	Data generation, Data Extraction, Data Cleaning, Exploratory Data Analysis, Feature Engineering, Feature selection, and Data visualisation.
ML Skills	Data Modeling, Clustering & Classification, Quantitative Analysis, Regression, Predictive Modeling, Statistical Modeling, Model Validation, Model deployment, RNN, LSTM, BERT, Transformers.

BLOGS

medium.com/@karshvpatel

IKEA, Logistics Department (March 31, 2023 - August 17, 2024)

- Efficiently collaborated with team members to ensure smooth operations and timely delivery of products.
- Demonstrated excellent attention to detail in inventory management, accurately tracking stock levels and conducting regular audits.
- Contributed to process improvements by identifying inefficiencies and proposing effective solutions.
- Assisted in maintaining a clean and organized warehouse environment, optimising space utilization and ensuring workplace safety.

IKEA, Logistics Department (March 31, 2023 - August 17, 2024)