

Real Estate Price Prediction

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Abstract: Real Estate price prediction is a critical task in the industry, leveraging data science and machine learning to forecast property values accurately. This predictive modelling is essential for various stakeholders, including investors, realtors, and financial institutions, as it aids in making informed decisions regarding property transactions and investments. The process involves integrating and analysing a myriad of data sources, such as historical sales data, economic indicators, demographic trends, and property-specific attributes.

Advanced machine learning algorithms, including regression models, decision trees, and ensemble methods like Random Forests and Gradient Boosting Machines, are employed to uncover intricate patterns and relationships within the data. Additionally, deep learning techniques are increasingly being used to enhance prediction accuracy by capturing complex, non-linear interactions.

Data pre-processing steps, such as handling missing values, normalization along with feature engineering (where we reconstruct), are crucial for model performance. Visualization tools assist in the exploratory data analysis phase, enabling a better understanding of the underlying data distribution and feature importance. Moreover, the deployment of these models on cloud platforms facilitates scalability and accessibility, ensuring they can handle vast amounts of data efficiently.

The integration of these technologies not only improves the precision of price predictions but also provides information of market trends and property value. As a result, real estate price prediction models have become indispensable tools in the modern real estate market, driving more strategic and data-driven decision-making processes.

Keywords: ML, Code repositories, Web Applications, Train and Test, Models