

Machine Learning in Real Estate

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Abstract: Machine learning (ML) is revolutionizing the real estate industry by enabling data-driven decision-making, predictive analytics, and process automation. This paper explores the applications of ML in real estate, including property valuation, market trend forecasting, customer preference modeling, risk assessment, and property management. By leveraging large-scale datasets, ML algorithms enhance the accuracy of price predictions, optimize investment strategies, and personalize user experiences in property searches. Furthermore, ML plays a crucial role in detecting fraudulent transactions and streamlining property management through automation. Despite its advantages, challenges such as data privacy concerns, regulatory constraints, and model interpretability remain key barriers to widespread adoption. This study discusses the potential of ML in transforming real estate practices while addressing the limitations and ethical considerations associated with its implementation. The findings highlight that machine learning has the potential to significantly improve efficiency, transparency, and decision-making in the real estate sector.

Keywords: Machine Learning, Real Estate Analysis, Property Valuation, Price Prediction, Market and Forecasting, Fraud Detection.