

Fake Product Review Detection Using Machine Learning

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Abstract: *Product reviews are critical to online shopping but false or deceptive reviews undermine producer confidence and undermine the legitimacy of the product. This study presents a machine learning approach to detect bogus reviews utilizing category, and rating data. The method includes TF-IDF for text features, One Hot Encoding for categories, and uses an XGBoost classifier for prediction. Model performance is measured using precision, recall, and F1-score. A Streamlit web app is also developed for real-time detection. Results show the system is precise and trustworthy in spotting fake reviews..*

Keywords: TF-IDF, NLP, XGBoost, Machine Learning Fake Reviews, E-commerce, Fake Reviews and Review Detection

