

# Fake Job Post Detection using Machine Learning

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**Abstract:** *This research focuses on developing a machine learning-based model to detect fake job postings and identify key words that differentiate fraudulent job listings from genuine ones. Five machine learning models—Logistic Regression, Random Forest, Gradient Boosting, K- Nearest Neighbours, and Decision Tree—were trained and tested on a dataset containing both real and fake job advertisements. The models were evaluated based on accuracy, precision, recall, and F1-score. Among them, Random Forest and Gradient Boosting demonstrated the highest accuracy and reliability in detecting fraudulent job postings. The study also analysed the most significant words contributing to job post classification. Words such as "Discoveries" "Select," "Extra" "Entry" and "Wages" were commonly associated with fake job ads. A word cloud visualization further highlighted these patterns, providing valuable insights into the linguistic characteristics of scam job listings. The results show that machine learning can effectively identify fraudulent job postings, helping job seekers avoid scams and aiding recruiters in filtering out deceptive listings before they reach applicants..*

**Keywords:** Fake Job Posting, Machine Learning Algorithms, Online Job Recruitment, Fraud Detection, Scam Prevention.