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## IMDB Movie Rating Prediction Using Machine Learning

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Abstract: Special selection techniques such as correlation analysis and regression feature elimination are used to identify the most valuable features. Various machine learning algorithms, including linear regression, decision trees, random forest, and gradient boosting, have been used to develop predictive models. Performance is measured using metrics such as mean squared error (MSE), mean squared error (RMSE), and R-squared. Experimental results showing the effectiveness of the proposed models in IMDb movie prediction. This model provides a high level of accuracy in rating, taking into account certain characteristics such as genre, director, actors, production budget, release date and user reviews. These findings provide better insights into the factors that affect film performance and help filmmakers and audiences make more informed decisions. This research contributes to the development of video prediction using machine learning. Design provides useful information to the film industry, helping to select films and optimize the decision-making process. The findings could improve the movie experience for viewers and boost the overall performance of the entertainment industry.

Keywords: Machine learning, Decision tree classifier, movie prediction, IMDB

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