A MINI PROJECT ON

**INDIAN SIGN LANGUAGE RECOGNITION USING CNN**

(Submitted in partial fulfilment of the requirements for the award of Degree)

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

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**ABSTRACT**

The movie industry is one of the most important branches of the entertainment industry, which generates a lot of revenue. The person playing a big role in this aspect is the producer as they are in charge of funding needed to produce the movie. However, producing a movie has its risks; one being that there is a chance of the movie not covering production costs. A producer relies on tools to predict profitability in movies for decision making with regards to whether or not to produce a movie project. For several years now, researchers have used different approaches to collect information that would be used as variables when predicting the success of a movie, but very few have explored using attributes directly related to a movie.

This project focuses on using decision trees to characterize and predict movie profitability. Decision tree classifiers are relatively fast compared to other classification methods and are easily interpreted by humans. For our project, we want to see the difference between using Gini Index and Entropy for the selection of the best split point based on an attribute using an impurity function. The decision tree will be used to forecast the profitability of a movie before its production. Decision trees are models commonly used as decision support tools and its results show that the resulting model predicts whether or not a movie will be profitable with an average accuracy of 63.79%. Keeping in mind that the approach presented in this paper is not a standalone tool, it should, however, be able to round out forecasting methods such as the producer’s foresight and judgment.

**EXISTING SYSTEM:**

Large quantities of data regarding movies are generated and stored for analytical reasons and this shows the agency in the movie industry. The way in which success is defined is of paramount importance to the problem, but past works have focused primarily on gross box office revenue while some used the number of admissions. There are several related works involving the prediction of movie success based on reviews and box office. The basic assumption for using the two as success metrics is simple, a movie that sells well at the box office is considered a success. However, the two metrics ignore how much it costs to produce a movie

**PROPOSED SYSTEM:**

Classification is the task of assigning objects to one of several predefined categories. In classification, there is a given set of sample records called the training dataset with each record containing attributes. An attribute can be numerical or categorical. One of the categorical attributes is called the classification attribute and its values are called class labels. The class labels indicate the class to which a record belongs. For this project, the expected revenue will be divided into six class labels whereby a movie classified in the category 5 is the highest profitable movie, the one in the 1 has the least non-zero profit, and the one in 0 has no profit. During classification, the model is created for each class and used to classify future records which are not present in the training dataset. The objective of our classification is to use the training data set to build a model of the class label such that it can be used to classify unknown class labels for new incoming data or new potential movies to be produced.

**HARDWARE REQUIREMENTS:**

Processor : Intel i3 (or) Higher

RAM : 4GB (or) Higher

HDD : 500 GB

**SOFTWARE REQUIREMENTS:**

Operating System : Microsoft Windows ,Linux or Mac**.**

Python – PyCharm

**CONCLUSION:**

It is clear that predicting profit of a movie with a 100% accuracy can be difficult and with a large amount of data collected it becomes unclear which criteria are the best for-profit prediction. The project aims to predict movie’s profitability before and after production in order to help investors and producer make a more informed decision where to invest in a movie or the effect of the budget on the retains from revenue. Our research aims to improve previous research by using a different type of classifier but based on previous related work, this might not be the case. For the rest of the report, we framed this problem to try and find the effective way to calculate the best splitting point using Gini index and Entropy. In general, we found that the decision tree based on the Gini index was a better classifier with an average accuracy of 63.79%, suitable to solve our problem. The lack of a pruning method proved to be a weakness in our implementations. For future work, we might consider using a pruning method in order to provide a more rigorous safeguard against high-variance or overfitting. This approach can be used as a support tool for prediction for upcoming movies.