



KnowMovie

Theme- Entertainment
and Life Hacks

Confused about what movie to watch?
Try KnowMovie



Problem Statement

A lot of the times when we want to watch a new release or an old classic that we haven't watched yet, we get confused as to whether the movie is actually good before watching. To solve this problem, we generally go to the iMDB website to read the reviews about that movie. Some reviews will suggest it's a good movie and others say a conflicting thing which makes it more confusing for us. This is time taking on the part of the user.



Solution:

You ask about a movie to Alexa and she replies whether the movie is good or bad based on the average sentiment of all the reviews scraped from the internet. Our model runs on all the reviews and gives a result whether a review is positive and negative. Using all this we then give an output about the general perception of that movie.

Using the famous iMDB movie review dataset, we trained a linearSVC model to perform sentimental analysis on 35000 entries in the dataset and tested it on the remaining 15000 entries. spacy was used for data preprocessing. The reason for using spacy and a support vector machine and a non deep learning model was simple: It is a lot faster and there is only a 5% drop in accuracy from the famous BERT model. BERT offered a 95% accuracy and our model gave an accuracy of 90% but it was a lot faster which is quite essential, given we've developed an Alexa skill where quick input and output is required.



Tech Stack Used:

- Alexa
- Node for backend
- Spacy for NLP
- Flask for hosting the AI Model
- API accessed through ngrok



Resources:

- Repo Link:
- Alexa Skill ID: amzn1.ask.skill.2ef4cc79-a839-4f46-8ec5-f51ae182393b



Future Applications:

- Right now, our AI model focuses only on the descriptions of Hollywood movies. We can train it further to include TV shows as well.
- Better train our model to produce better quality results as well as it is able to work with reviews written in other languages.
- Training the model on new reviews so as to keep up with the changing vernacular



Conclusion:

In lockdown when everyone is stuck at home with nothing to do except watch movies or TV shows, it's better to watch a good movie rather than a bad movie and waste your free time. KnowMovie helps accomplish that using Machine Learning and accessibility is of essence as we've made this into an Alexa skill.



Thank You
- Team KnowMovie