

Movie Recommendation System Using Optimized RNN Approach.

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Abstract: This paper proposes a movie recommendation system that utilizes an optimized Recurrent Neural Network (RNN) approach. The proposed system is designed to provide users with personalized movie recommendations based on their previous movie preferences and the sentiments. The system works by taking user input, analyzing their movie preferences using content-based filtering techniques, and generating a list of recommended movies. The RNN architecture used in this system is optimized using a combination of techniques such as dropout regularization, early stopping, and parameter tuning. The proposed optimization techniques aim to reduce overfitting, improve convergence speed, and increase the model's overall accuracy. To evaluate the effectiveness of the proposed approach, we conducted experiments on the Movie Lens dataset. The results indicate that the optimized RNN-based movie recommendation system outperforms other existing recommendation systems such as collaborative filtering, content-based filtering, and standard RNN models. Furthermore, the proposed system achieved a significant improvement in accuracy and provided highly personalized recommendations to users. Overall, the proposed movie recommendation system using optimized RNN approach is a promising solution for providing personalized movie recommendations to users. It can be implemented in various platforms such as movie streaming websites, social media, and other movie-related platforms to improve the user experience and increase engagement.

Keywords: Movie recommendation system, Recurrent neural network, Collaborative filtering, Content-based filtering, Hybrid recommendation system, Deep learning

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