

ANIME RECOMMENDATION SYSTEM BASED ON USER'S EMOTIONS

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Abstract

Anime is a popular type of entertainment in many countries. However, people may find it challenging to pick which anime series to watch due to the abundance of series that are available. There are various algorithms for making recommendations, however they frequently concentrate on genre or shows that are comparable rather than the feelings of the user. With the help of deep learning methods like CNN and image processing, the author set out to develop an anime recommendation system that considers the user's emotional state.

The author first gathered a dataset for emotions before developing the anime recommendation system. To process these images and extract the emotional information, the author used deep learning techniques such as CNN and Image Processing. The model was taught to identify various emotional states in the facial expression and link them to recommendation method. To process the image data, a multi – layer CNN architecture was developed. Later layers of the network learnt more complicated features like facial expressions from the input from captured images. To decrease the overfitting author additionally used pooling layers. Finally, the author fully connected the developed model with a recommendation method in order to give the better output with the system.

The author used common measures like accuracy and F1 score to assess how well recommendation system performed. In order to evaluate how well the system works at recommending anime depending on user emotions, the author also performed user research. System successfully recommended anime series based on user emotions and achieved good accuracy for the test dataset. Overall approach offers a user the chance to get recommendations based on their emotional states.

Keywords: Image Processing, Emotion Detection, Anime Recommendations, Deep Learning