

Musical Therapy from Facial Expressions Using Deep Learning

Batch No.: 07

Abstract :

This project utilizes facial expression analysis to identify a user's emotions and provides music recommendations, including music therapy for patients, to explore the connection between emotions and various music genres. When the music app is launched, it automatically assesses the user's emotional state by capturing their facial expressions, which convey feelings such as happiness, sadness, and anger.

An intelligent system then organizes music into different genres and suggests suitable playlists to users based on their current mood. The project employs facial expression recognition techniques and image processing to analyze the user's emotional state through their facial expressions. Additionally, music genre classification algorithms are used to categorize songs based on the emotions they evoke.

The facial expression recognition utilizes the Fisherface machine learning algorithm, while classification is performed using Convolutional Neural Networks (CNN). The system compares and selects music that closely aligns with the user's mood, enhancing the user experience and ensuring an optimal playlist tailored for relaxation and calming purposes. This facial expression-based music recommendation also offers personalized treatment tailored to individual emotional states. It provides convenient access to therapy remotely, allowing patients to receive support from the comfort of their homes.

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