

عنوان مقاله:

Music Genre Classification using CCN-based neural networks

محل انتشار:

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خلاصه مقاله:

During the last decade, music streaming services have extended a lot and attracted many users around the world. One of the main challenges in the field of categorizing and recommending music to users is recognizing the genre of music. Music genre is a conventional category used to describe the characteristics of pieces of music that belong to a common tradition. Since genre is a high-level attribute for a piece of music, it is a great step for correct classification. In this article, a method based on deep learning and Convolutional Neural Networks (CNN) is proposed, which performs genre classification with high accuracy. The proposed method consists of three main phases: data pre-processing, training/verification phase and testing phase. The well-known GTZAN dataset has been used for evaluation of the proposed method, which has 1000 pieces of 30 seconds music in 10 different genres, some of which are: classical, blues, rock, hip hop, etc. Simulation results show that the proposed network can classify the data with an accuracy of 80.8%, which is better than that of some similar previous methods.

کلمات کلیدی:

Genre classification; convolutional neural networks; deep learning; GTZAN

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