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Lead Sheet

Automatic Music Transcription

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Abstract

Music is a universal language. A song is a mixture of multiple sources, namely a mixture of instruments, mixture of multiple voices and other musical elements which enhances the quality of the mix such as reverb, bass etc. When a song is produced, music producers mix all the sources in an ideal way by adding all these effects and arranging each and every source where it is supposed to be. So, when a song gets released some music producers release all their STEMS (sources with effects) also. But most of the time they do not release the original STEMS to the public. When a new song gets released, usually artists of that particular song releases the official chords, tabs, notations to the internet, if not musicians who have a good theoretical music knowledge finds the correct tabs, chords and they post it to the internet. Most of the musicians do not have the complete theoretical musical knowledge, comprehensive enough to identify the chords, tabs, notations of a given song just by listening to it. Due to that there is a tendency to wait until the official artist of that song releases the original chords, tabs, notations of a specific instrument to the internet. Sometimes this takes months after the song is released. So that the beginner musicians must wait until the chords, tabs, notations of a specific instrument to get released either way. To overcome this problem, this research study has been executed to build a deep learning solution which can de-mix all the STEMS of a song and also to transcribe music accordingly. It was deemed very effective and time saving by most of the musicians when it comes to music transcription.

Key Words: Deep Learning, Audio Source Separation, Piano Music Transcription, Guitar Music Transcription