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Music Transcription is the process of notating a music piece solely by hearing. It is the highest skill acquired by musicians during the ear training process, as it involves the identification of pitches, intervals, melodies, chords, and rhythms, along with a mature understanding of music theory. Some of the skills involved in transcription, such as recognizing melodies and rhythms, are natural for most people, but extremely difficult for machines. The goal of my research is to design a computer system that automatically transcribes a piece of music into standard music notation, which is the most natural notation for musicians.

I call this system   as its purpose is mainly to assist musicians in being more precise and effective and to speak to them in the language they are most familiar with,   common music notation. Amateur musicians might use the system to improve their skills, while professional musicians, such as composers, might appreciate the ability to quickly notate improvisation sessions on a piano.

The core of the proposed method is a high-accuracy music transcription system for piano music in a context-specific setting. That is, the system has to be trained on the same instrument and in the same acoustic context,   room and microphone position, that will be used for the transcription. This constraint allows to increase the accuracy of the transcription above the accuracy of