Project Title	Piano Chord Error Detection For Beginners
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Abstract

Piano is recently a popular musical instrument. There are a number of people interested in practicing piano. Beginners are always lack of chord understanding, chord memorizing, chord memorizing technique, and chord fingering. This causes beginners unconfident and mistake. This project proposes Piano Chord Error Detection for Beginners in order to enable beginners to understand the chord pressing especially for a pop music. This program can detect the piano chord error. There are 2 user levels: beginners and practice. In beginner level, the program indicates the figure of each chord fingering to teach user finger the chord. The practice level has no chord fingering figure to test the beginner. The program consists of 3 processes: feature extraction, chord classification, and chord error detection. It is tested and evaluated by 2 set of piano chords. Each set has 24 chords totally 48 chords. User can select the chord name and then choose the input file. Afterwards, the program computes feature using magnitude Fourier method in feature extraction process. Chord classification process then uses as the conditions of 24 chord classification in decision table. Finally, the chord error detection process compares the result of classified chord with the selected chord name. In order to evaluate the program efficiency, the proposed program shows 100% classification accuracy of 48 chords.