Guitar Notation with Media Interface

(Student Proposed)

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BSc in Computer Science

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Abstract

In this project we will explore the design and implementation of a guitar tablature program with embedded media. Music tablature software and more specifically guitar tablature software has been around for decades, but none seem to have embedded media like video and audio files. In the last decade, use of this type of software has increased as more musicians post their content on many different social media platforms, creating a high demand for the sharing of information. This information is in the form of guitar tabs which is a way of representing how a particular piece of music is played.

The goal of this project is to improve on an existing format of guitar notation for the purpose of teaching, sharing, archiving and practicing. It will include features like:

Embedded Media: This includes both audio and video to accompany the tablature in a timeline. There should be an easy way to synchronize the video/audio and tabs. Preferably to timeline with bpm markings.

Sharing and Archiving: Information should be exported in multiple supported formats that can be shared over the internet. Including video which should have an overlay of the tablature which is in synch with the playing.

Practicing: The app can be used to help musicians practice, with features like a metronome to keep with rhythm.

The hope is to create a more streamline way of creating guitar tabs from videos/audio without constantly having to switch between different programs to see/hear what’s being transcribed.

**Chapter 1:**

Introduction: