Guitar Notation with Media Interface

(Student Proposed)

# David Nwokoye

Final Year Project

BSc in Computer Science

Supervisor: John Morrison

Second Reader:

Department of Computer Science

University College Cork

# 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 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 streamlined way of creating guitar tabs from videos/audio without constantly having to switch between different programs to see/hear what’s being transcribed.

# **Analysis:**

## Why this project:

Why it’s good fyp

## Existing Applications:

There are many guitar tablature software options out there. The most popular one’s are Guitar Pro and TuxGuitar.

### Guitar Pro

Guitar Pro has been around since 1997. It’s mainly used for guitar transcription but can be used for many other instruments other than guitar. It allows for multiple tracks which can be view using standard staff notation or guitar tabs in which notes are represented by a number corresponding to the frets on a guitar. File formats like GP, GPX, GP3, GP4 and GP5 are used for composition. It has multiple export formats like midi, pdf and many audio formats.

### TuxGuitar

How can it be used to improved other apps

# **Design:**

# **Implementation:**

# **Testing:**

# **Conclusion:**