**System Description**

*Audio Analyzer*

Created: 01/20/21 by Tom Lever

Updated: 01/25/21 by Tom Lever

**Opportunity Audio Analyzer Will Address**

Musicians and musicologists would benefit from the development of a software application that would allow for audio visualization and automation of audio annotation.

**What Audio Analyzer Will Do**

Audio Analyzer will automate audio annotation by processing audio files and identifying rests and notes along with their start times relative to the beginning of their audio file, and their durations. An audio file contains one audio signal. Audio Analyzer will present to a listener / viewer an annotated audio signal of the audio signal, rests and notes, and their start times and durations.

**Protections**

A file uploaded by a user for processing will only be available for processing and visualization by that user, or by other users to whom the uploading user has granted permission.

**Phases of Development**

At the end of Phase…

1. Audio Analyzer will have its minimum viable capability of listening to a track in an audio file and identifying ensemble-wide rests or most-powerful pitches.
2. Audio Analyzer will have its minimum viable capability of listening to a track in an audio file and identifying ensemble-wide rests or most-powerful pitches and their starting times.
3. Audio Analyzer will be able to listen to a track in an audio file and identify ensemble-wide rests or most-powerful pitches, their starting times, and their durations.