Project Proposal

1. Team Name: Invading the Realm of the Arts
2. Team Members: Seungwhan Moon, Tom Lamar, Rui Wang, Jeff (maybe)
3. Minimum / Maximum Deliverable:
   1. Minimum – Given an input of a MIDI file of notes of constant length, our program will be able to use Markov chain analysis to generate music, which it will export as another MIDI file.
   2. Maximum – Using a GUI, the user will be able to select from at least two different modes of music generation. The first option will be like the minimum goal, but without the constraint of constant times for each note. The second option will have more user control: they will input a chord progression, and the program will generate music following that chord progression. Also, the program will be able to play MIDI files from within the GUI, as well as save them for future use (possibly as input to this very program).
4. First Step

We will first need to read documentation on the MIDI format. From here, we will get insight about how to process MIDI files, as well as the kinds of classes we should use for our internal representation of music.

1. The biggest problem we foresee is using the MIDI format in python. Though we have already found a Python module that we believe will work, this remains a potential source of problems.