Melody Creator

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About the Project

- Reproduce some music sequence that is similar to one's generated by Beethoven

- Uses machine learning to learn properties from the original input music

- My sample music uses only the notes play by the right hands on the pianos

- Randomly generate 10000+ sequences and compare with the data gain from the original music to see if they qualify

What properties I used

▶ Ratio of, difference between this note and next note under three, vs , number of notes in the song

▶ Ratio of, number of notes duration less than and greater than certain amount, vs, number of notes in the song

▶ Average notes duration

▶ Number of notes that falls within a certain Octave based on the first note of the original song

Other Functions

▶ Functions to get entire duration

▶ Checking duplicate notes to prevent situation where notes are repeated many times

▶ Functions to get duration from original song that is longer than 90% of the duration

▶ Using the previous mention function to divide the randomly generated song into sequence, and either repeat or reverse after current sequence

▶ Extra functions include one that determines ratio of notes that are higher than certain value, vs, number of notes in the song