

Musical Painting Software

Description

In this project, I'm going to work on this musical painting software. This software will allow people to draw on the canvas, and the algorithms inside will generate different musical pieces based on people's drawings.

Idea

There are a lot of software that can produce videos by generating a dynamic waveform of music pieces. During this process, we first have music, and then input the music pieces into the software to generate videos. I think it may be interesting if we reverse this process: we can draw dynamic figures and then make music.

Interactive Elements

The graphical user interface will consist of a white-background canvas and several different brushes. People can select different brushes and paint with different patterns or textures. Also, users are allowed to choose different colors.

Musical Parameters in Control

- By changing the colors of the brushes, people can control the timbres.
- By changing the sizes of the brushes, people can control the volumes.
- Pitches can be changed by making the lines up or down on the canvas.

Challenges

One of the biggest challenges is implementing a human-computer interactive system. It's hard to write a program that allows people to draw and generate music at the same time.

Schedules

- Sept 15: Proposal Due
- Sept 16 - Oct 21: Finish the codes about the painting canvas.
- Oct 21- Oct 24: Write project draft.
- Oct 25 - Nov 12: Finish the codes about generating music pieces.
- Nov 13 - Dec 5: Implement the codes of the graphical user interface.
- Dec 6 - Dec 13: Final Paper
- Dec 14: Concert & Final Paper Due