MAS Minigrant Outcome Report— Kaiming Cheng

The project is a huge success. With the help of the mini grant from the Miller Arts Scholar, I was able to launch an IRB research with the latest VR headset.

User Testing Setup:
Participants are asked to sign an Institutional Review Board (IRB) consent form before the experiment. They were given a brief questionnaire to learn about their music background and virtual reality using experience. Participants will then be asked to play music using the VR instrument and answer questions about their experience.
The questionnaire contained a series of statements where the participants marked "Strongly Disagree - Disagree - Neutral - Agree - Strongly Agree". I use the feedback from the participants to determine characteristics of effective VR music apps across varying levels of music and technology experience.

Data collection:
I use Qualtrics to collect the survey responses. The surveys will not ask for any identifying information, so all responses will be anonymized.

Survey Results
- Music Background. 80% of the participants have music training background and all of the participants played with Virtual Reality before.
- Immersion Rating. The survey asked the participants to rate how immersed they felt in the MelodyPainter on a scale from 1 to 5. 1 is not at all immersed, and 5 is strongly immersed. The mean is 4.53 with a variance of 0.38.
- Satisfaction With Sound of Created Music. The survey asked the participants to rate their level of satisfaction with the music they created on a scale from 1 to 5. 1 is not at all satisfied, and 5 is strongly satisfied. The mean is 3.93 with a variance of 0.46.

Reported Experience
Many users found it satisfying to play MelodyPainter, meanwhile, other users express their expectations for the future development.
- "This project is amazing!! Would even be cooler if one could change the color / texture of brush."
- "I liked it a lot, it felt smooth and fluid – the sound with the motions" • "It has the potential for a whole stage type set-up."
- "This is amazing!! You are going to be famous for this."
- "So cool!"
- "Great program!
- "Need to see how it operates with user selection of sounds"
- "I think that the VR cables need to organize themselves more aggressively."
- "I felt like I need more precise control on the note I am creating."
- "Would be better if I can control the articulation."

Expenditures
HTC Vive PRO Headset Standalone Headset —$799