Banana Bop: An Immersive Musical Experience

Isabelle C. Anderson[1], Daniel J. Robinson[2]
Rochester Institute of Technology

Keywords— Jungle, Monkeys, Music, Animated, Illustrative, Motion Capture, Adventure, Learning

Banana Bop is an immersive, illustrated Virtual Reality experience that puts the player in a magical jungle. Several monkeys come to join the player and teach them how to play a series of instruments. These instruments include a rock, a drum, two shakers, a xylophone, and a drum set. Each instrument is brought out by a different monkey who then shows you how to play each instrument, and then hands it to you to make your own sound. After you learn each instrument, the band members from a local band, Soul Human, come out from the jungle as anthropomorphic monkeys and perform their funky monkey themed song, "Banana Bop." The player can jam along with their newfound mastery of these jungle instruments.

Fig. 1. Banana Bop Jungle

I. Development

Our team consists of designers, musicians and coders. The group was formed for an interdisciplinary project-based class where we were tasked with making an immersive musical experience. When a local RIT band, Soul Human, pitched their hilarious monkey game, we knew it had to be made. Each current member of the team hopped on and we got to work.

Isabelle was in charge of the visual aspects of the experience. She designed the environment, characters, instruments, and the user interface. All of these assets were created using VR painting. Daniel was in charge of all the technical aspects of the experience. He programmed all the VR interactions and in-game events. All of this was done using the Unity game engine and the SteamVR library.

Due to the CoronaVirus, we experienced several setbacks and changes had to be made. Prior to quarantine, Isabelle had been using Quill to create the environment and models. Once everything shut down, they no longer had access to an Oculus headset to run Quill. Luckily, a friend let them borrow a Vive headset while classes were finishing up for the semester. The VR painting tool on the Vive is Google Tilt Brush. Isabelle had to completely start over and create everything again in Tilt Brush. Fortunately, Tilt Brush ended up being the superior tool, and the project was actually improved from this setback!

As for the tech team, none of us had access to any VR equipment. We instead started working on making the game playable using only mouse and keyboard, which required a reimagining of all of the controls and mechanics. The end result was not nearly as immersive as the VR experience, but we resolved to come back and develop the project in VR in the future.

II. Conclusion

It has been a blast and a challenge working on this project, and we are so excited to share our progress. It has been an amazing learning experience and we are so grateful to have the opportunity to share our work with you. It's been a lot of work, but certainly worth it. We hope you agree! Thank you for the opportunity!