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Culmination

2/27/21

Culmination Proposal

1. Project Description

I came to City Tech to get what my competition doesn't have. I want to offer software engineering of Eq's, Reverb, Chorus, Flanging, Samplers and Synths in my job interviews. I would like to make compositions with software I have made in the future. I also would like to make the hardware to operate it. Making a distortion VST is only the beginning. My culmination project will be used to challenge myself to engineer an additive synth VST for all platforms.

2. Methods

I have chosen to be a software developer in my technical production class so that I can surround myself with like minded individuals and tools of the trade. I will be using JUCE framework. It is used by an audio development company called OutPut and is one of the industry standards for VST building. It has templates which are starting points to building UI/UX, Audio Plugins and GUI.

I will go through all the tutorials that JUCE offers on their homepage and I will take the free introduction course by OutPut on using JUCE to build VST's. I also will take a 4 hour course on using C++ from freecodeacademy on YouTube. I will then follow the JUCE midi synthesizer tutorials.

I will be using a Mac and a PC for testing and implementation. This allows me to load my VST into Ableton Live, FL Studio, Protools and Logic. The IDE I will be using is VS Code for PC and XCode for Mac. I will allow musicians from Blue Light Studios Digital Sound to try it out to gauge user experience and locate audio bugs.

3. Project Deliverables

* Materials and Labor Estimate
* Screenshots of software
* Links to research and tutorials
* Poster
* OpenLabs Portfolio

4. Schedule or Calendar

Research and development

Feb 1st - Mar 3rd

Thursdays 1 - 3pm

Fridays 11 - 2pm

Saturdays 12 - 2pm

Sundays 1 - 3pm

Code writing and building

Mar 3rd - April 19th

Thursdays 1 - 3pm

Fridays 11 - 2pm

Saturdays 12 - 2pm

Sundays 1 - 3pm

Testing April 20th - May 1st

Sending Vst via email with link for google survey

Saturdays 12 - 2pm

Sundays 1 - 3pm

Presentation building

May 1st - May 10th

Saturdays 12 - 2pm

Sundays 1 - 3pm

5. Required Resources

* Mac
* PC
* XCode
* VS Code
* Ableton Live
* Fl Studio
* ProTools
* Logic
* YouTube
* Reliable Internet access
* Adobe illustrator
* Adobe photoshop
* Adobe after effects
* Adobe premier
* Drawing pad
* Pencils
* Colored pencils
* Musicians
* Studio
* PowerPoint

6. Budget

OutPut Kadenze class $20 - $350, depends on how much I can understand in the $20 dollar class first.

Gas $15

7. Proposed table of contents/Portfolio Outline

* Introduction
* Methods
* Project Budget estimate vs actual
* Project Calendar estimate vs actual
* Completed paperwork video and plugin

Materials and labor estimate

Schedule

Screenshots

* Conclusion
* Annotated Bibliography

8. Culmination Project Agreement