

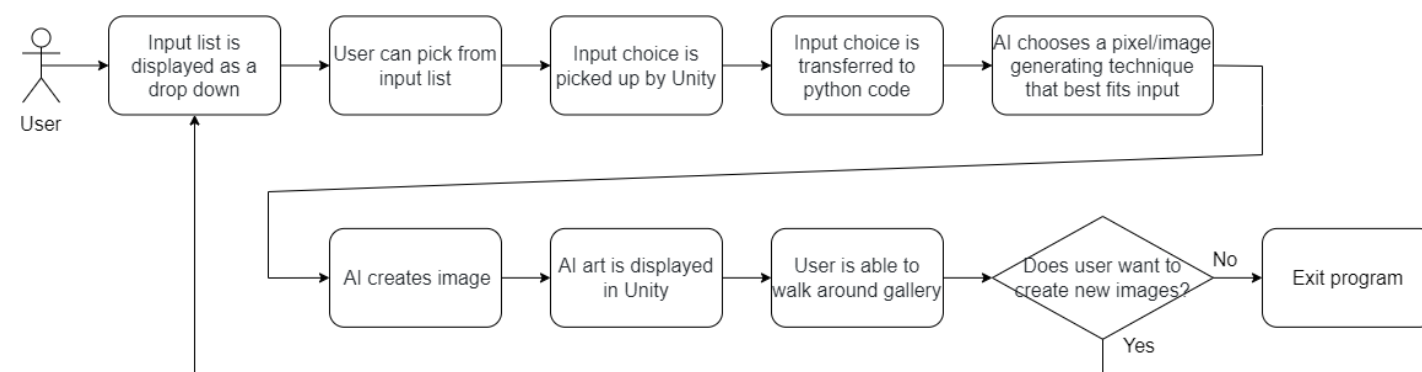
IMMERSIVE ART HALL

Overview

Our project creates AI art and allows users to view it through a virtual gallery in a VR headset. Using state of the art (pun intended) AI technology and cutting edge Virtual Reality software/hardware, this project will be able to generate art of YOUR choosing to be put on display in an immersive, luxurious art gallery.

Design Ideas

Our project creates AI images using Python, which are then loaded in by the code handled by Unity, and displayed to the user through their headset.



Technologies Used

Languages: C#, Python
Libraries: Python.Net, Stable Diffusion
Programs: Unity3D

Challenges

- Image creation: We used existing, open-source libraries to generate the art and struggled with reducing the execution time of the AI art generation.
- Integration: As our code for image creation was done in Python and our environment code was done in Unity, we needed a way to integrate the two languages. To do this, we used Python.net which allows for python code to be run in C#.
- VR Development: Using Unity3D as the engine, various 3D models as well as textures had to be implemented in such a way that it felt immersive in a VR space, not just on a 1920x1080 screen.

Future Plans

We plan on enhancing our application by:

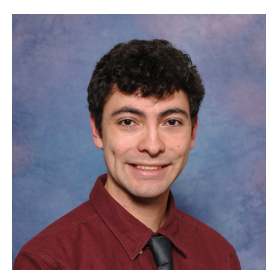
- Incorporating a multi-player setting, where multiple users can view and interact with the gallery
- Generating 3D art pieces using AI and displaying them in the gallery



Students:



Rachel Lindquist (CS)



Scott Hunt (CS)



Nishi Koneru (CS)

Faculty Advisor:



John Gallagher