CS: 360/560   **Computer Graphics**   **Spring 2024**

150 points Project7 (Final Project)   **Due 4-25-2024**

Extra Credit Points will be considered.

Read the instructions carefully. If you don't understand something, please ask. Post your final solution to canvas. Please put everything in one zip file. Be sure to **include the names of all team members** in all the files you submit.

Objective

For this project each team will create their own unique VR experience. The experience can be presented in Twinmotion (highly recommended), Blender, Unreal Engine, or webXR (not recommended). Each team will demo their final project in the Extended Reality lab, Robinson 311. One team member will be in VR, and the other team member will be on the classroom computer where the VR experience will be projected onto the screens. This presentation will be the Final Exam presentation. This project and the final exam presentation are two separate assignments. Each assignment will get a grade.

Part1 (Due 4/15) (25 points)

Each team will submit their proposal to canvas. Only one member of the team must submit. Please include your team number and all team member names on the submission. This write-up is what you are proposing to do. If your final project turns out to be a little different from what your team proposed that is ok. Just be sure to explain the pivots that your team took in the project document. The minimum number per team is 2. The maximum is 3. If you have a team of 3 your VR experience will be expected to be a more detailed experience. It is important that you consider how the work will be divided between all the team members. This work division will need to be described in the project document during the final exam presentation.

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Part2 (Due 4/25) (125 points, Extra credit is possible)

Submit to canvas your working VR experience. This should be in the form of one zip file. Please be sure to include a README.txt file for any special instructions on how to run your VR experience. You will also need to include a project document. The project document should include a description of your workload distribution for each team member.

You are going to create a 3D scene in which VR experience will take place. You can create 3D models for your scene in several ways. You can build models in Blender. You can download free models from Turbosquid. You will be required to create two model will Polycam. You can add models in Twinmotion via drag and drop. You can create non-copyrighted models in Luma-AI Genie. An example of this type of model would be a fire extinguisher, or some everyday used item like a spoon, or a fork. Stay away from any art or copyright characters like SpongeBob, or Mario.   You should create models in all the above ways. For the most part all model imports and exports between systems should use the glb file format which is the glTF

binary file format. For example, you can create an animated object in Blender. You can export it out of Blender as a glb file, and then import the animated glb file into Twinmotion. Twinmotion is very good for creating cityscapes, or a neighborhood of homes, or even a very detailed home with furniture, grass, trees, bushes, a sidewalk with people walking on it, a street with cars driving on it. Once in VR Twinmotion will have a menu on the left controller where you can change the time of day, the time of year, the weather, etc.