**CS 550 Final Project Proposal**

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In this final project, I am planning to implement a solar system in a crystal ball with several other features.

The main part of this project will be creating the solar system and make a shiny crystal ball. I’m planning to use lighting and texture mapping in creating the solar system. Creating the crystal ball is the mainly challenge for me in this project, since it is exactly new to me and we haven’t done anything similar in the class. I assume that shader will be used in creating the ball.

In the project, I am planning to set two kinds of views, one from outside of the crystal ball and one inside of the ball. When users are using the outside view, they should be able to use mouse to do the rotation and scaling just like any other project we did in the class. When users are using the inside view, they should be not only using mouse to do the rotation and the scaling but also using “WASD” on the keyboard to move the camera.

I am also planning to put two switches in the menu which control some environment changes in the crystal ball. One is for the snow, it controls whether there will be snow falling in the crystal ball. Another one is for several colored “disco lights”, it will control several colored spotlight staring from the bottom of the crystal ball and moving the directions around. There will be another switch which will turn on a “space trip”, the camera will start from earth and go around to visit every planet in the system and finally go back to the earth.

The features I am planning to do in the final project are all listed and described above. To implement them I need to use almost everything I learned in the class and I also should learn some new techniques at the same time. Hope these will result in a good final project for this class.