

Undergraduate Project Proposal

CSCI4229

Jason Lubrano

October 2018

1 Purpose and Justification

The final project for CSCI4229 will require a seven week long intense graphical project. The project is due Tuesday, 11 December 2018, 11:59 PM. By Thanksgiving there should be at least a rough draft for the final project.

2 Project Requestor

Instructor: Dr. Willem A (Vlakkies) Schreüder
Email: willem@prinmath.com

3 Statement of the Problem or Need

The New Orleans Superdome is home to the New Orleans Saints, one of the profesisonal football teams in the National Football League. I plan on creating the Superdome using OpenGL software. There is a lot of detail that involves creating a sports arena. Between structure, lighting, textures, object design down to the seats, there is a lot of detail that goes into making this.

4 Strategic Context

There will be multiple layers to the project. First, the viewer will see the exterior of the Superdome. The viewer will be free to move around the outside of the stadium. When the viewer zooms into the stadium, they will be able to move around and see the inside of the stadium with a first person view. I may be able to incorporate a perspective view as well.

The stadium is a giant cylinder with a concave middle and a giant dome on top. I will need to make the exterior and then be able to proportionately place a football stadium on inside bottom floor. I plan on placing the multiple floors with the concession stands also. This all goes into the structure of the building.

Using lighting I plan to light up the exterior of the Superdome with several different options. Whether it is off, white, and purple, yellow, and green, the colors of Mardi Gras. I would like to have a small light show happen, but I am not sure this is possible due to time constraints. I tried to do this with a previous project and couldn't figure it out. On the interior I will place the light fixtures on the top around the ceiling. I would like to have a spotlight effect to happen to give the most accurate representation of what it will look like in real life. There are also led screens going across the upper-level in the stadium. I could have these emit a small light with a texture for viewing. By pressing certain keys I would like for the lights to go off, quarter brightness, half brightness, three quarter brightness, and fully lit.

With textures I will have a grass texture set for the football field and for outside the field. I will have a building texture set which will include textures of the outside, the inside, the walkways, etc, a seating texture set which will be fabric and plastic, a person texture set if time permits I would like to have a sports team and fans.

The jumbo-tron will have several textures going around it for the screen and it will emit light.

5 Time factors

There is seven weeks to complete this project. A rough draft should be done in three weeks. The final project is due Tuesday, 11 December 2018, 11:59 PM. The rough draft that should be majorly due is Thursday, 29 November 2018, 11:59 PM.