~ Haunted city ~

~ Hide and seek ~

~ Find the pink skull ! ~

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Group: 30432, 3rd year, CTI-engleza

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Project Graphical Processing Systems

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Contents and subject description

Project requirement : The subject of the project consists in the photorealistic presentation of 3D objects using OpenGL library. The user directly manipulates by mouse and keyboard inputs the scene of objects.

With this requirement, I chose to make a project showing a haunted city view.

Scenario

Welcome to the haunted city. Here, you are with the blue skull and you will need to find the pink one.

In my scene are 3 houses, 4 trees, 1 car, 2 wooden barrels and two skulls. The blue one can be moved with the arrows, you will need to find the second one (pink skull).

Functionality

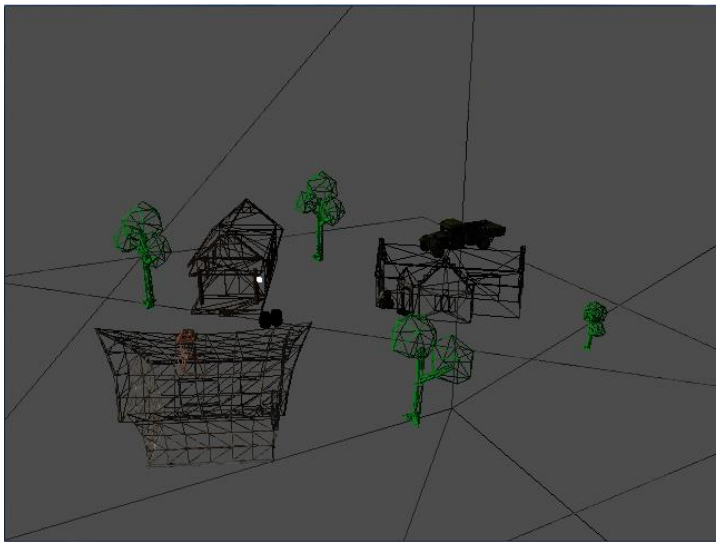
- Buildings are fixed and the ball moves around the scene with the arrows.
- The camera is moving with mouse and the keys : W A S D.
- You can activate the wireframe with P and deactivate with O.
- The light changes its position with J and K
- The keys I and U are used to toggle fog.

Implementation details

To improve my projects details, I implemented wireframe and fog.

Wireframe

Implemented with glPolygonMode, where GL_LINE is for wireframe and GL_FILL for filled scene.



Fog

Conclusions and further developments

Basically, is a very simple project, but it can be evolved in a third person shooter game with a western theme or in one Pac-Man 3D game with skulls instead of ghosts.

References

For objects :

- www.free3d.com
- www.cgtrader.com
- www.turbosquid.com

And some tutorials for skybox, wireframe and fog

- *https://www.youtube.com/watch?v=MSii7P0j420*
- learnopengl.com