# Game Algorithms – Multi-Threading

By David Zuniga Navarro

## How to build:

1. Project is made and compiled in VS2019.
2. Open the solution file, and make sure configuration is set to x64, Debug/Release.
3. Release is recommended for a better experience.

## How to use:

* WASD - Move the camera in X and Z axis
* QE - Move the camera in the Y axis
* Mouse - While left clicking moves the camera

## What’s going on?

I made a separate loop to load the models into the scene. Which lets you start the program way faster than before, which can be fully appreciated by watching the videos included in this submission. (NonThread.mp4 & MultiThread.mp4)

To see this change in my project the only necessary thing is to change a line in the code (the thread call for the model loading).

This can be found on “theMain.cpp” file, lines 151 and 152:

//JSONLoader::JSONLoadMeshesSimple(); This line does the regular loading

JSONLoader::LoadMeshes\_Thread(); This line makes the thread call

Similar to what we reviewed in class I made some changes to the ModelLoader and Mesh files to include a Status(), which gets changed twice.

File: cMesh.h

cMesh() : status("not\_loaded") {};

File: cModelLoader\_assimp.cpp

theMesh.status = "loaded";

File: JSONLoader.cpp

pMesh->status = "on\_gpu";

With this changes each part of the code respectively loads the gameObject info, Mesh info, and loads the Mesh into the GPU.