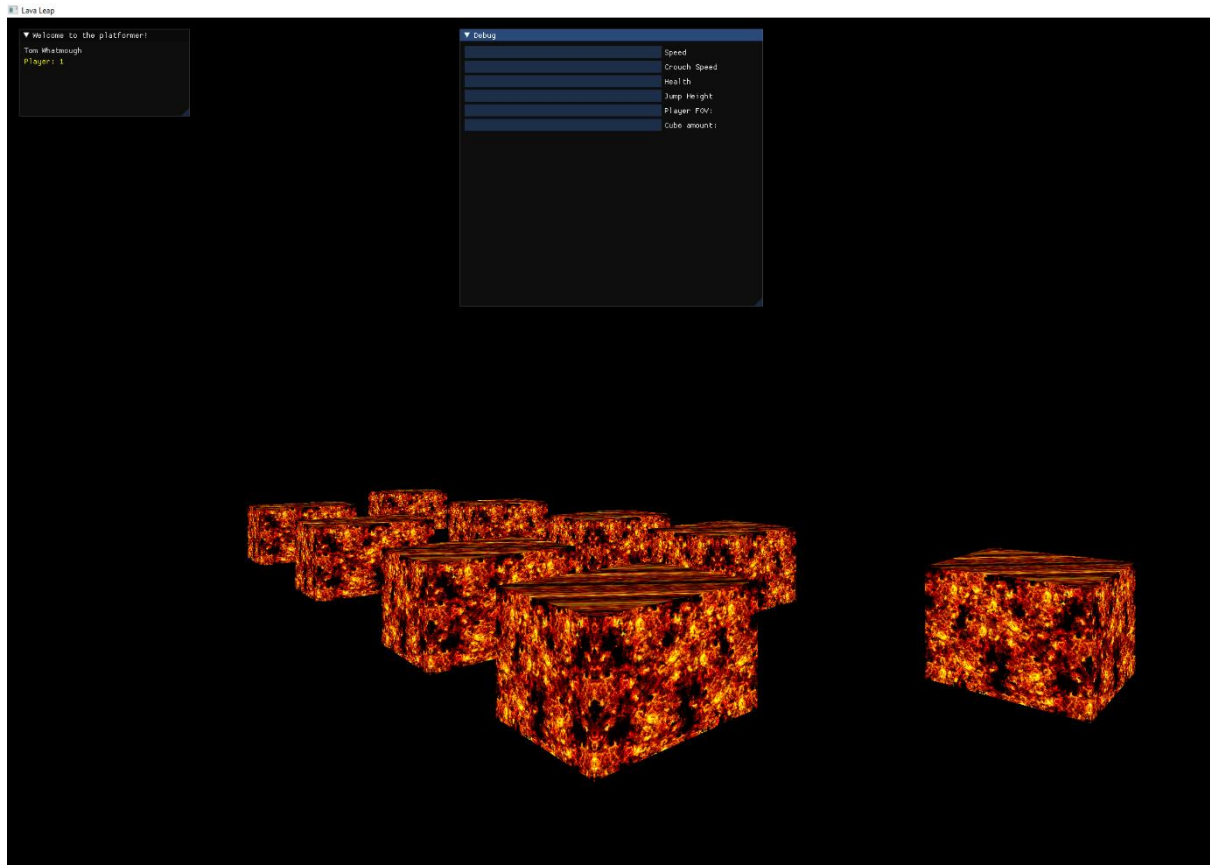


Lava leap

https://youtu.be/08VnGz8_ivs



https://studio.youtube.com/video/08VnGz8_ivs/edit

This project is a first person 3-D Platformer Lava Leaper, the theme "the floor is lava" is reversed in this game and your aim is to jump on the cubes of lava. I played a game called Ghost Runner last summer that had you running around jumping from object to object in a fast-paced manor. You can this project by clicking the coursework2.exe.

The game features a first-person character controller and an array of objects for the player to jump on, the player has a few different statistics, normal speed, crawl speed, jump height, and player health. My main project.cpp contains all the code for the project minus some shader code. The first methods contain the ImGui code, and this initialises ImGui, and then a separate method controls the ImGui Interface, from this method we can control our statistics through a graphical user

interface. Our Main method is the declaration of all our movement methods and our while loop that runs while our window is open this is where we define our shader and create our projection and view matrix which we pass into our shader this gives us the ability to look around, using the process input we can also take in WASD to move around CTRL to crouch walk and SPACE to jump, ESCAPE closes the project, you can also change your field of view with mouse scroll and the GUI interface. I also create a loop to make the cubes, the number of cubes can be controlled through the GUI too.

There is a camera class included, but I do not use this for my view and projection in the main project.

The game sticks to the original game pitch which was a 3d platformer that featured physics and although it does not feature gravity and collision it does include a form of physics with the player jumping.

There is a few bugs and issues, currently the player can jump and land but there is no subsequent collision with the actual lava blocks. The jump sound causes a frame rate issue and plays a few too many times so it's commented out in the code but feel free to uncomment and have a listen to it. Holding space will also allow you to hover over the game area too! (not intended)