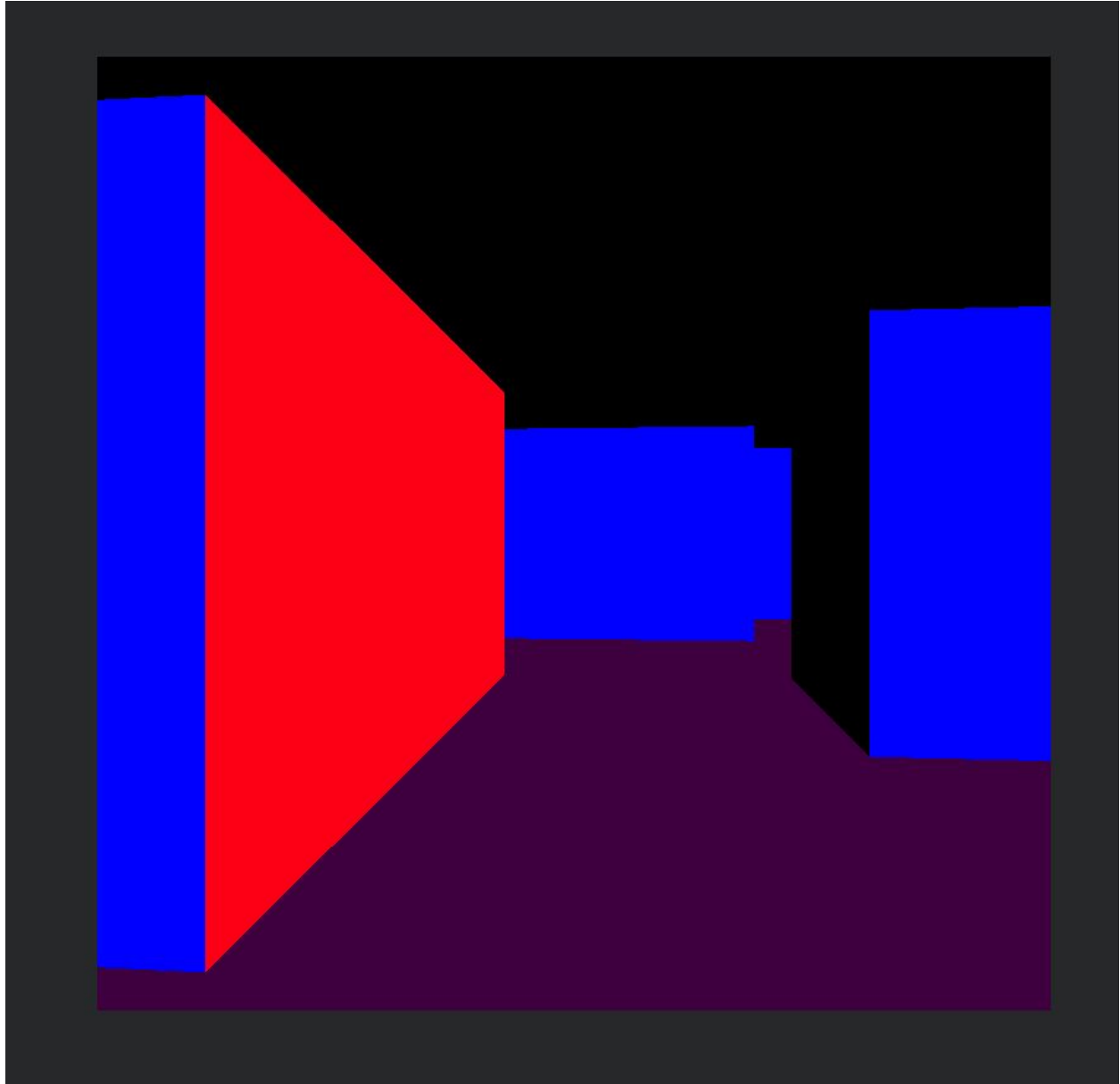
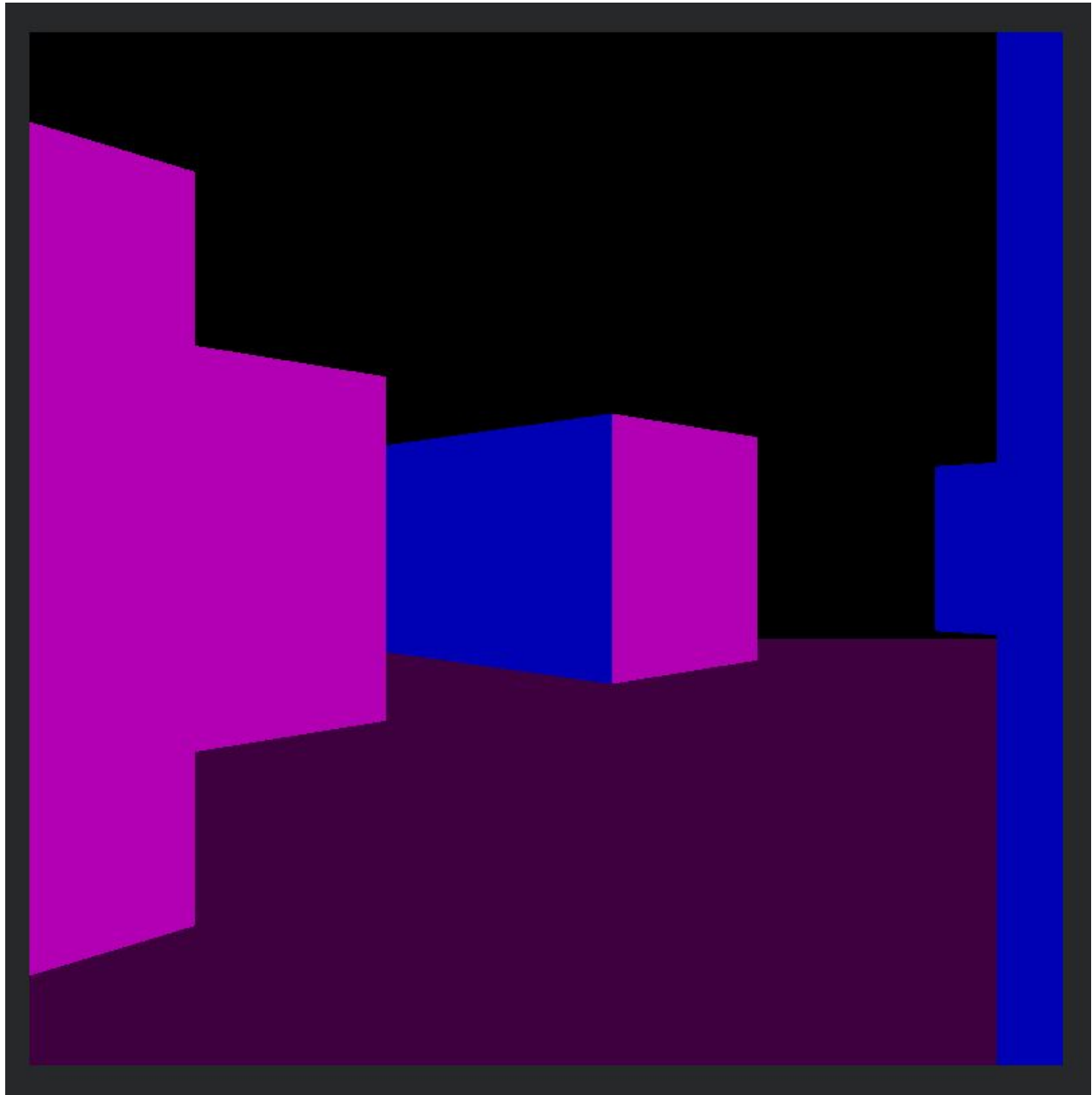


Work title: Cube Labyrinth  
Designer: Riley Johnson  
Date: 4/14/2020

The idea of this project is to have a randomly generated world of cubes that you can walk around in and explore in first-person. You will be able to destroy the blocks in front of you to clear paths.

Here are a couple of screenshots from the final product:





You can walk around using WASD, and look to the left/right using q/e or right arrow/left arrow. Spacebar is used to destroy the blocks in front of you

#### Algorithms:

There isn't any too complicated that's being used, the world is basically a boolean matrix where each slot was randomly made true(has a block) or false(empty).

For the first-person perspective I stored an x/y for the user and an x/y for a point that the camera looks at, which is a position at a specified distance from the user's x/y based on whatever direction is being looked at. The world also uses the Z-axis as the up/down axis, that

way I can treat the world as if it is 2D using only x and y in the code, however, this did cause problems with getting lights to work properly.

Program Link: <https://cdn.statically.io/gh/qeeen/cubeworld/713bf1d0/index.html>

Github link: <https://github.com/qeeen/cubeworld>