

CS460 Fall 2022

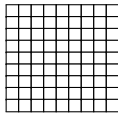
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Due Date: 09/19/2022

Assignment 2: XTK Cube / Pixel Art

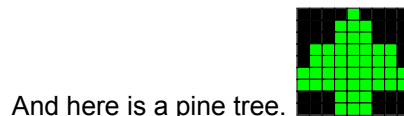
We will create pixel art - and then use XTK to render it in 3D, fully interactive and web-based.

Here is an empty grid of 9x9 pixels: 

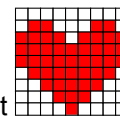
If we set pixels to different colors, we can create pixel art.



Here is a fox.

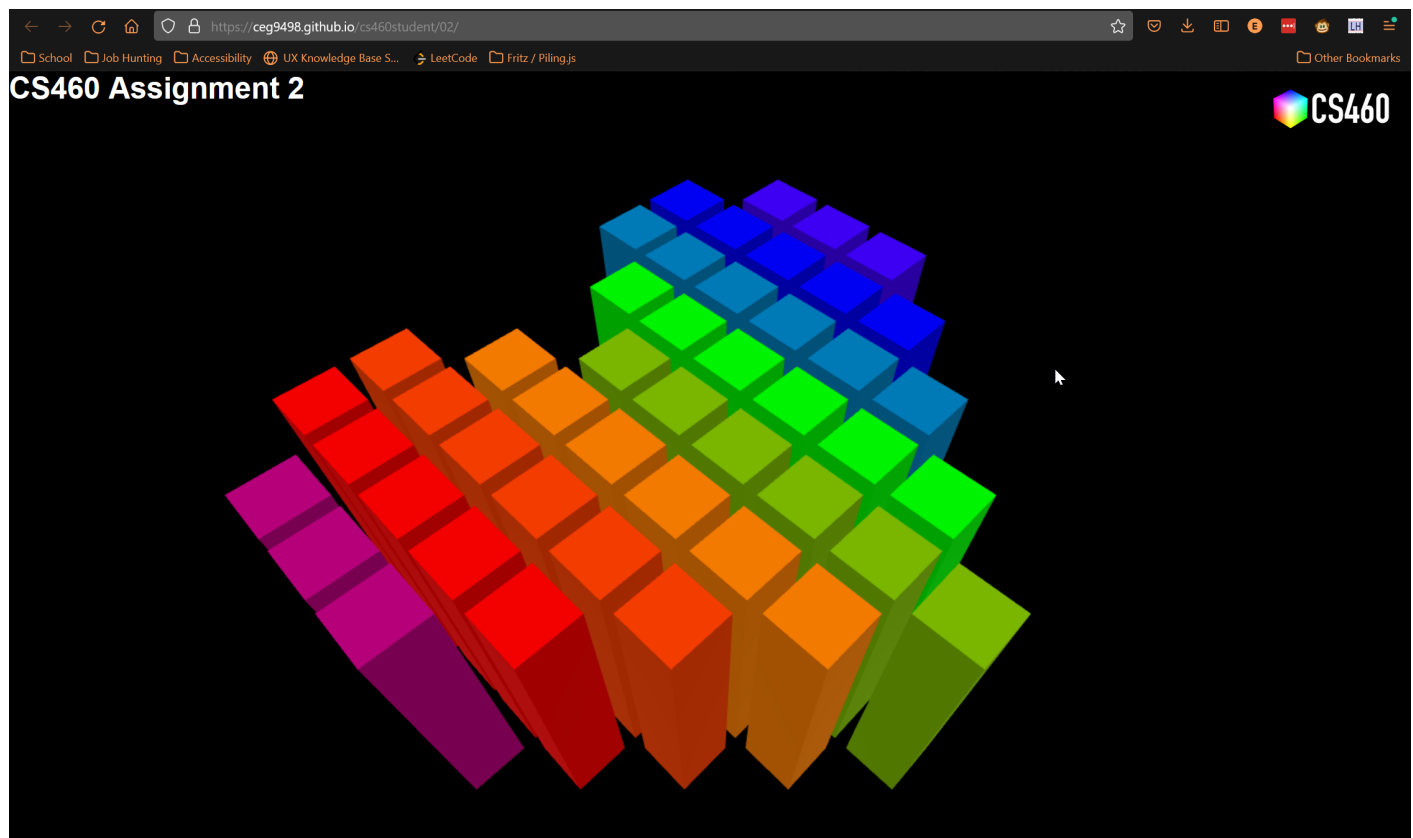


And here is a pine tree.



And here is a heart

To create 3D pixel art, we can use colored `x.cube` objects instead of pixels.



Bonus (33 points):

Question 1 (10 points): If we would not care about the gap between cubes/pixels, how could we reduce the number of X.cube objects in the scene?

You can change the size of a single cube to fill an entire region that represents a single color. In the example I have created, I could use only 9 cubes (one for each column) while maintaining my colors.

Question 2 (23 points): Animate the pixel art! We can use the following JavaScript snippet to execute code every second:

```
setInterval(function() {  
    // your code  
}, 1000);
```

Please write code to animate closing/opening of the fox's eyes or, if you chose the pine tree, make some pixels/cubes light up like a Christmas tree. In both cases, you will need to keep track of certain cubes and then change their color using the snippet above. You can submit this as part of your 02/index.html file.

<https://ceg9498.github.io/cs460student/02/>