

Live Lecture Chat Window

February 14, 2024



12:46:37 Does the blur happen to every texel in the 5x5 kernel?

The 5x5 (or 3x3) kernel gets placed on top of each texel that you are producing an RGB for. Each pixel is going to end up with a color that is a combination of the colors around it.

13:18:07 Can we do render to texture in the final project?

Definitely! All shader techniques are in play.

13:23:36 In mosaic, is the line in between squares due to floating point errors?

Interesting question. I believe the appearance of the line between mosaic squares is an optical illusion. There is nothing in the code that would produce such a line. Zoom in on the quad with the mosaics on it to confirm this. I suppose it's possible that the "set the out-of-bounds pixels to black" might be getting in the way, but I don't see how (yet).

13:25:26 I want to use this to make cross-stitch of images

Brilliant idea! Final Project?

13:34:06 So if the Earth wasn't in the way, we'd see a full circle?

Yes. It's like sometimes you see a rainbow in the clouds below you when you are on an airplane. That rainbow is a full circle.

13:35:05 Is the rainbow a circle because of the curvature of the earth?

No, it's because that's where the angles line up.

13:36:47 Is that where the pot of gold would be?

We wish!

13:47:09 I wonder if a lot of people who study computer graphics end up studying physics

Maybe not as a second major, but certainly as a side gig. Works the other way too. Some physics people study CG so they can draw images of their simulations.

13:47:57 As a physics major, [I know that] the general physics series prepares you the best for this type of stuff

Seems logical.

13:48:17 My first degree was physics!

That's very cool! I bet you can think of lots of things to make the graphics mimic!

13:48:33 The Andrew Glassner video from cs450 made me realize that
https://media.oregonstate.edu/media/t/1_1a6fkeuj

You're right. A lot of the best things that Andrew has done came out of his investigation into the physics of natural phenomena.

14:02:44 For the final project proposal, do we need a video for that? Or just 1 page pdf?

Just the one-page PDF.

14:16:39 [The paper on mimicking an Aurora Borealis:]
https://www.cs.uaf.edu/~olawlor/papers/2010/aurora/lawlor_aurora_2010.pdf

14:54:19 From Jeremy Prater to Everyone:
ImGUI : <https://github.com/ocornut/imgui>
spdlog : <https://github.com/gabime/spdlog>
glm : <https://github.com/g-truc/glm/>
glad : <https://gen.glad.sh/>
PerlinNoise : <https://github.com/Reputeless/PerlinNoise>