<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connor McLaughlin</td>
<td>A spaceship chasing the dragon.</td>
<td><a href="https://youtu.be/qS3FYS8IWhQ?si=ZovrjKWYiBUgtHyb">https://youtu.be/qS3FYS8IWhQ?si=ZovrjKWYiBUgtHyb</a></td>
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<tr>
<td>Michelle</td>
<td>I manipulated color in the fragment shader by replacing myColor’s RGB values. The red value was produced with noise while the green and blue values were produced using the s and t coordinates.</td>
<td><a href="https://media.oregonstate.edu/media/t/1_ng3rf70a">https://media.oregonstate.edu/media/t/1_ng3rf70a</a></td>
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<tr>
<td>Donovan Burk</td>
<td>Flapping dragon spinning in ray marched fog. Made by using multiple render passes.</td>
<td><a href="https://youtu.be/VG1mq9mGQKY">https://youtu.be/VG1mq9mGQKY</a></td>
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<tr>
<td>Sam White</td>
<td>Dual Layered Gradient</td>
<td><a href="https://www.youtube.com/watch?v=Ad1oJjBaagA">https://www.youtube.com/watch?v=Ad1oJjBaagA</a></td>
</tr>
<tr>
<td>Phillip Cazella</td>
<td>Dragon with two different bmp images blended together, a gradient coloring above the feet, some noise, and per fragment lighting. Also included eyes with a shader to draw the pupils.</td>
<td><a href="https://media.oregonstate.edu/media/1_w7y04mip">https://media.oregonstate.edu/media/1_w7y04mip</a></td>
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</tbody>
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| David Abiola    | The Dragon Menagerie:  
- Smoothstepâ™ed noise effect on the Dragon.  
- Pulsating color effect on the Dragon.  
- Stripe effect on the Dragon.  
- Identified the wings of the Dragon.  
- Flapping effect of the Dragonâ€™s wing.                                                                                     | [https://media.oregonstate.edu/media/t/1_vimkz28k](https://media.oregonstate.edu/media/t/1_vimkz28k)                     |
| Brandi          | Rainbow Kaleidoscope dragon                                                                                                                                                                                   | [https://youtu.be/NvMeialGo4](https://youtu.be/NvMeialGo4)                                                        |
| Shreeya          | I have applied Mandelbrot effect to my dragon and placed around neon background!!                                                                                                                               | [https://media.oregonstate.edu/media/t/1_zl3rcn3a](https://media.oregonstate.edu/media/t/1_zl3rcn3a)                     |
| A Bear           | My take on a "toon" shader. Quantizes the user-selected color into however many "buckets" the user wants, and has a cool scale texture that’s also implemented as a displacement texture. In practice, it’s a very neat dragon-themed abstract art generator! | [https://media.oregonstate.edu/media/1_ptiv84ff](https://media.oregonstate.edu/media/1_ptiv84ff)                         |
|                 | (There's a mathematical oversight in my code [since corrected], relating to the displacement texture)                                                                                                               |                                                                      |
methodology that contributes directly to some of this abstractness. I'll fax you a salmon if you can tell me what it is.

Andy Li
Toon Dragon of Doom!

Dhushyanth
A flying dragon animation with flapping wings.

Dhushyanth
A flying dragon with flapping wings

Dhushyanth
Dragon toasting a marshmallow with volumetric fire. Based on the 2007 paper Real-time Procedural Volumetric Fire by Fuller, Krishnan, Mahrous, Hamann, and Joy.

Joe Witte
dragon standing on lava in a cave with heat waves

Craig Harris
A dragon with interleaved horizontal oscillation, causing it to appear as though it splits in two.

Christopher Somnitz
Crystal Dragon - Randomizing color based on surface normals

Anson
Cartoon Shader utilizing the cell-shading, rim-lighting, and outline techniques to create a cartoon dragon.

Stanley Hale
An attempt at learning how to create a silhouette and toon colorizing with only the Vert and Frag Shaders. It sort of came out like a Cel Shaded shader and more became about playing with the normals. Oh, I also did a noise based color inversion using a scale texture.

Brandon Cowan
The rendering of a reflective dragon in a cubemap environment while under the effect of a Gerstner wave vector manipulation.

Curt Haldorson
A dragon with the texture/pattern of two different image files (loosely based on Chinese culture) that can be blended or changed with glman sliders.

Alyce Harlan
Shawn Robinson
A black-and-white dithering shader, which attempts to re-create the gradients of full grayscale lighting using only pure black or pure white pixels.

https://media.oregonstate.edu/media/t/1_qd05qs06

Jackson Hart
wave-y dragon

https://media.oregonstate.edu/media/t/1_8hp66rm6

Annette Tongsak
A chromatic aberration shader that lets you change the individual index of refraction values for R, G, B to create different effects!

https://youtu.be/HTh1W3_k6sl?feature=shared

Wilhelm Gusztav
A ever changing color dragon following an orange-yellow orb in the NVIDIA lobbies

https://www.youtube.com/watch?v=5TxoEf2JtLI

Francia
I used the spectral effects code provided by Professor Bailey to achieve a rainbow on the dragon OBJ :)

https://media.oregonstate.edu/media/t/1_cty8i79n

Brittaney Nico Davis
My dragon uses two-pass rendering to apply a pattern and do edge-detecting on that pattern. I calculated three possible patterns: hearts, clovers, and stars, and did an additional option where all three could be active at once in different "rows" on the dragon.

https://media.oregonstate.edu/media/t/1_tl99qmm5

Jolene Farley
I created two dragons in this project, one with a fire-like texture and the other with a water-like texture. I named this project Yin Yang Dragons because it was inspired by the Yin Yang symbol and to celebrate Chinese New Year. I am planning to build on this project for my final project. I use cube mapping with high refraction and several diamond pictures on both dragons to give them a base look of a diamond.

https://media.oregonstate.edu/media/t/1_4rxooxn6

Jacque Legorreta
What is different about my cube mpping is that I added elliptical dots on top of the cube mapping. A .bmp file is displayed inside of these ellipses, so that you see another picture on top of the cube mapping. This makes the elliptical dots show a .bmp picture, rather than one solid color. This .bmp picture is different for each dragon. The water dragon uses a picture of water. The fire dragon uses a
picture of fire. I applied per-fragment lighting to the dragons.

I finished with another object, a sphere that is scaled up to appear as the background for the sky. This sphere objects shows an animated background that mixes the diamond cube mapping with a picture of a sky.

Fire Breathing Dragon

For this project, I utilized the normal lighting effects that we have previously used, added an explosion effect, and added the ability to add lines to the dragon as well as emulate a glow effect. I started by working on the explosion effect. To do this I applied the explosion in the vertex shader. I started by calculating the displacement position. To do this we had to calculate a new position by displacing it along the normal direction and scale it by the explosion factor. This gives the effect that each triangle that makes up the dragon is being pushed outward (or exploding) from the original position. Then, I had to take the displaced position and move it into the new space by multiplying it to the projection matrix. This calculates the final position of the vertex. Then vMCposition is used to pass the displaced position to the fragment shader for rasterization. To create the lines on the dragon across the S and T (even though the dragon’s S and T are not great at all for lines) I had to calculate the distance between a current line and the next line that appears. I did this for both S and T in the lineDistS and lineDistT functions. After calculating the distance, I had to find the minimum distance from a fragment to the nearest vertical or horizontal line. This helps with our glow effect. We then have to determine if a fragment is within the range of the flow effect based on the distance of the fragment to the nearest line. For the glow effect, we don’t want the effect to be a blanket color, so based on the distance from the line, we determine how much of the

https://media.oregonstate.edu/media/t/1_kukew28y

https://youtu.be/mixbtA3AzPs
orange color to blend with the gray of the dragon. However, if the glow is close to or in the line, we want orange to overpower the gray of the dragon.

Parameterized as a sphere or a plane, this shader is an advancing flame that engulfs the dragon and leaves behind no vestige of the once-majestic beast.

Liam Zimmermann

Tharit Kitumnuaypong  The night dragon on the wave  https://media.oregonstate.edu/media/t/1_98kb3z9m

James Balden  Brick pattern Dragon with adjustable brick and mortar size.  https://media.oregonstate.edu/media/t/1_jm4yse5z

Hrishikash Kadakia  The Dragon Menagerie Project features an animated visual experience with cube mapping reflective and refractive bump-mapped surfaces. Using dynamic patterns controlled by time variables in both the vertex and fragment shader files, the project showcases a pulsating motion applied to a dragon model. These transformations create colorful and visually engaging effects, making the dragon appear vibrant and dynamic. Viewers can enjoy an interactive scheme as they observe the dragon undergoing captivating transformations.

https://www.youtube.com/watch?v=SoA5Ij6gR8Y