

Oregon State University

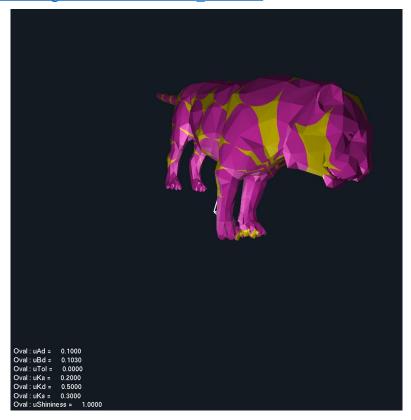
CS_557_X001_W2022 COMPUTER GRAPHICS SHADERS

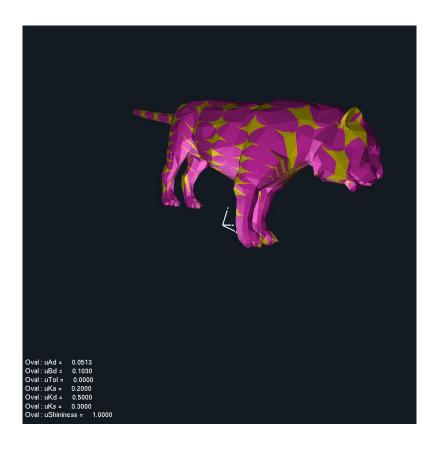
Project #1

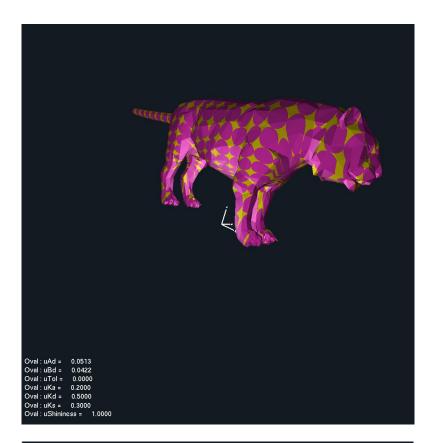
Professor: Mike Bailey Student: Chengxu Xu (xucheng@oregonstate.edu)

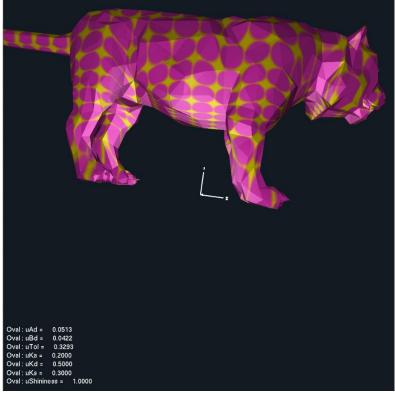
Screen Shots:

Kaltura link: https://media.oregonstate.edu/media/t/1_skkulkd2









Key snippets:

```
Vertex oval.vert
Fragment oval.frag
Program Oval \
    uAd <.001 .1 .5 > \
    uBd <.001 .1 .5 > \
    uTol <0. 0. 1. > \
    uKa <0. .2 1. > \
    uKs <0. .3 1. > \
    uShininess <.01 1. 10. >

Color 1. .2 .8

Obj tiger.obj
#Sphere 1 50 50
```

```
float results_of_ellipse_equation = ( SQUARE((vST.s - sCenter)/Ar) + SQUARE((vST.t - tCenter)/Br));
float t = smoothstep(1.-uTol, 1.+uTol, results_of_ellipse_equation);
```

```
vec3 finalColor = mix(vColor, dotColor, t);
```