

## CS 450/550 Fall Quarter 2023 Final Project Video Gallery

### **Andy Li**

Raytraced Leaves and Spheres

<https://youtu.be/lvBZ3Ay6rgA>

### **Ananya Sundararajan**

A simple game to capture Pokemons

[https://media.oregonstate.edu/media/t/1\\_0ax837s7](https://media.oregonstate.edu/media/t/1_0ax837s7)

### **Alex Hollinghead**

I created a shell texturing shader to create a grass or fur effect that can be applied to different geometries.

[https://media.oregonstate.edu/media/t/1\\_66pr3al](https://media.oregonstate.edu/media/t/1_66pr3al)

### **Nelson van de Lindt**

Nuclear Fusion tokamak explanatory animation

[https://media.oregonstate.edu/media/t/1\\_8hgsvylh](https://media.oregonstate.edu/media/t/1_8hgsvylh)

### **Matthew Hearne**

Starship to the Moon

[https://media.oregonstate.edu/media/t/1\\_i9vaxt8k](https://media.oregonstate.edu/media/t/1_i9vaxt8k)

### **Dunia Karaki**

THE FINALHAZARD (The final boss fight of Sonic Adventure 2) The first half focuses on Super Sonic 'attacking' the biolizard, but getting hit by the laser and being sent back to the starting position. Like the game, he backflips to the start. This loops a few times. The next part focuses on Super Shadow collecting rings on the other side, with the rings actually 'disappearing' when he appears to go over them. Afterwards are just some views to show the scene and how everything is set up.

<https://drive.google.com/file/d/1kdh-rEPfM4ezav6fuMp5AUlcRmy2pB4A/view?usp=drivesdk>

### **Jameson Yee**

User-interactable Gerstner Wave simulator

<https://youtu.be/TjvfWoEP840>

### **Abhishek Patel**

Solar system

[https://media.oregonstate.edu/media/t/1\\_qi464cwX](https://media.oregonstate.edu/media/t/1_qi464cwX)

**David Abiola**

Animation of the Solar System

[https://media.oregonstate.edu/media/t/1\\_tq0wel7g](https://media.oregonstate.edu/media/t/1_tq0wel7g)

**Ashwanth**

A spaceship maneuvers around planets and shoots down other spaceships. The animations were done using key time. The planets had textures.

[https://media.oregonstate.edu/media/1\\_tdeglyw7](https://media.oregonstate.edu/media/1_tdeglyw7)

**Viacheslav Tekae**

3D particle-based fluid simulation

[https://media.oregonstate.edu/media/t/1\\_n3gy29sd](https://media.oregonstate.edu/media/t/1_n3gy29sd)

**Gwenn**

A day at the park- includes lighting, animation, instancing, texture

[https://media.oregonstate.edu/media/t/1\\_3s0yhxpj](https://media.oregonstate.edu/media/t/1_3s0yhxpj)

**Jenny**

Biplanes KeyTime Animation

[https://media.oregonstate.edu/media/t/1\\_vcw48ioc](https://media.oregonstate.edu/media/t/1_vcw48ioc)

**Oria Weng**

Bread builder - build a ring of custom castles made of bread!

<https://youtu.be/tkrpcC9ld6I>

**Taylor Homan**

A short animation of the TARDIS (Doctor Who) flying to different places.

[https://media.oregonstate.edu/media/t/1\\_580hgwx4](https://media.oregonstate.edu/media/t/1_580hgwx4)

**Breanna Tran**

Butterfly flying and landing on a lotus flower to pollinate it

[https://media.oregonstate.edu/media/t/1\\_b0r00la4](https://media.oregonstate.edu/media/t/1_b0r00la4)

**Casey Anderson**

I recreated a working watch using OpenGL that tells the current time. Realistic hand movements that update each frame (60 fps).

[https://media.oregonstate.edu/media/t/1\\_p2g7mmpd](https://media.oregonstate.edu/media/t/1_p2g7mmpd)

A snow globe with a snow man, cabin, and falling snow

[https://media.oregonstate.edu/media/t/1\\_zq42b4ut](https://media.oregonstate.edu/media/t/1_zq42b4ut)

**Steven Tran**

Bowling Alley TV Monitor animation for when you score three consecutive strikes. Otherwise known as a "Turkey".

[https://media.oregonstate.edu/media/t/1\\_j6o6xqes](https://media.oregonstate.edu/media/t/1_j6o6xqes)

**Joe Witte**

This is an interactive "fractal forest" containing 450 fractal trees. The program implements levels of detail, billboarding, mipmapping, and frustum culling in order to improve performance.

[https://media.oregonstate.edu/media/t/1\\_s0zeb3ea](https://media.oregonstate.edu/media/t/1_s0zeb3ea)

**Craig Harris**

The Legend of Zelda: A Link to the Past opening title card in OpenGL.

<https://www.youtube.com/watch?v=-wLZx1zSGcs>

**Aylee Shomali**

The ice cream cone that fell on the marble floor - An animating ice cream cone that falls and changes color with the splatter modeled using Blender's metaball modeling tool.

[https://media.oregonstate.edu/media/t/1\\_5or4uvov](https://media.oregonstate.edu/media/t/1_5or4uvov)

**Amy**

Pokemon trainer battle. You can select Bulbasaur's moves!

[https://media.oregonstate.edu/media/t/1\\_4v4aq9c8](https://media.oregonstate.edu/media/t/1_4v4aq9c8)

**Bogdan Gevko**

A 3d scene demonstrating textures, shaders, lighting, animations, and shadows.

[https://media.oregonstate.edu/media/t/1\\_k8y0szbn](https://media.oregonstate.edu/media/t/1_k8y0szbn)

**Beck Lindstrom**

Robot Arm Moves doughnut

<https://www.dropbox.com/scl/fi/tunh5rjk99whg9jvu0fbl/CS450FinalProject.mov?rlkey=a9evrh20fhu95i75z8xem7p&dl=0>

**Jeremy Prater**

A procedural height map terrain with a skybox, Gerstner waves/water, shadow mapping, procedural generated fish, rocks, and plants.

[https://media.oregonstate.edu/media/t/1\\_qf6i2w2a](https://media.oregonstate.edu/media/t/1_qf6i2w2a)

**Thao Thomas**

Turning Lantern

[https://media.oregonstate.edu/media/t/1\\_wvogin7f](https://media.oregonstate.edu/media/t/1_wvogin7f)

A campground scene with a revolving night/day sky, a fire, and fireflies.

[https://media.oregonstate.edu/media/t/1\\_27uyqf9y](https://media.oregonstate.edu/media/t/1_27uyqf9y)

**Joshua Bowles**

I created a very simple Minecraft shader. Custom Minecraft shaders use GLSL and are an excellent way to learn how GLSL works in a practical environment. Shaders can be loaded on the fly and modified in (close to) real time as you play the game. I found it was an excellent way to clearly visualize the effects of modifying various aspects of the vertex and fragment shader. Most of the information I used that was specific to Minecraft was found in the ShaderLabs community

<https://youtu.be/MrPIrN2kF2I>

**Jude Williams**

Attempted to recreate a section of the original 1982 Tron light cycle sequence. Created my own light cycle in Blender inspired by the original, and attempted to recreate a section shot-for-shot.

[https://media.oregonstate.edu/media/t/1\\_hxmkuwn3](https://media.oregonstate.edu/media/t/1_hxmkuwn3)

**Marc Zalik**

An interactive animation of the James Webb Space Telescope in its halo orbit around Lagrange point L2. Users can watch the Earth, Moon, and JWST as they orbit around the Sun. Users can also enter Telescope view mode, in which they can view different parts of the cosmos as they control the direction of the telescope.

[https://media.oregonstate.edu/media/t/1\\_3vyk79cf](https://media.oregonstate.edu/media/t/1_3vyk79cf)

**Yun Hsuan Chan**

Fireworks!

[https://media.oregonstate.edu/media/t/1\\_22szs59r](https://media.oregonstate.edu/media/t/1_22szs59r)

**Christopher Weinert**

My final project was a model of the Sun-Mars-Moons. In it, Mars orbits around the sun while its two moons Phobos and Deimos, orbit around Mars. The viewer can change the eye position from an outside view of the orbital system or position the viewing eye on Mars, Phobos, or Deimos.

[https://media.oregonstate.edu/media/t/1\\_kv5xmacc](https://media.oregonstate.edu/media/t/1_kv5xmacc)

**Subramanya Keshavamurthy**

Nuclear Fission

[https://media.oregonstate.edu/media/t/1\\_09hglnpd](https://media.oregonstate.edu/media/t/1_09hglnpd)

**Vanessa Dowd**

A cherry blossom opening and closing. I used Blender to craft the petals and animated them to open when the sun was orbiting above the flower and close when it went away. I used keytime animation to orbit the light source like the sun.

[https://media.oregonstate.edu/media/t/1\\_mr31qm39](https://media.oregonstate.edu/media/t/1_mr31qm39)

**Andrew Osborne**

Fly-by past the USS Enterprise (NCC-1701-D) from The Next Generation

[https://media.oregonstate.edu/media/t/1\\_9azaocay](https://media.oregonstate.edu/media/t/1_9azaocay)

**Jillian Vondy**

For my final project I modeled a lotus flower and a leaf using Blender, created and applied textures to the parts of the plant, and animated the petals so that the flowers appear to bloom.

[https://media.oregonstate.edu/media/t/1\\_l4qzh6d1](https://media.oregonstate.edu/media/t/1_l4qzh6d1)

**Ethan Masiel**

3D scene generated with the assistance of ChatGPT

[https://media.oregonstate.edu/media/t/1\\_wodvzteu](https://media.oregonstate.edu/media/t/1_wodvzteu)

**Bhavan Vasu**

The project described in the video is a prototype for a driving simulator for understanding US traffic laws inside a "Glass Dome" according to Newton's Laws of Motion for rigid bodies. It utilizes concepts such as Translation for movement, Lighting for the Sun, Shaders for coloring cars, and texture mapping for the Sky, Grass, Road, Traffic Signs, and Bridges. The "Glass Dome" is an idea to simulate best the relative motion of the sky to the car. It involves mapping an image of a sky inside a sphere while the sphere is translated and/or rotated based on the car's movement.

[https://media.oregonstate.edu/media/t/1\\_a5p6kw5v](https://media.oregonstate.edu/media/t/1_a5p6kw5v)

**Jolene Farley**

An animation of a popcorn machine. The animation shows 500 pieces of popcorn popping out of a kettle and falling to the floor of the machine. Each piece travels on a parabola in a random direction and has the potential to bounce on landing to a final resting spot. As time increases, the pieces appear to "pile up," resting in increasingly high y-values. Each run of the program randomly generates the order of the pieces, their shapes and colors (from one of three options), and their direction of movement/resting spot.

[https://media.oregonstate.edu/media/t/1\\_1l1x7wgl](https://media.oregonstate.edu/media/t/1_1l1x7wgl)

**Franchesca Mayi**

Small Forest.

[https://media.oregonstate.edu/media/t/1\\_p82k20lc](https://media.oregonstate.edu/media/t/1_p82k20lc)

**Rebecca Klump**

Terrain generator using vertex and fragment shaders

[https://media.oregonstate.edu/media/1\\_girhf2ka](https://media.oregonstate.edu/media/1_girhf2ka)

**Thao Ly**

I created an 11 second keytime animation of a pinball machine I personally designed. The objects in the animation are a combination of OpenGL primitives and exported obj files from an online 3D CAD program. I make use of textures for the backdrop of the machine and provide different lighting options that can be accessed by toggling the L key.

<https://drive.google.com/file/d/16hU5e3-Q9O6bRg6LnVcaCNo6xr5wp2l0/view>

**Matthew Hearne**

SpaceX Starship Launch to the Moon

[https://media.oregonstate.edu/media/t/1\\_i9vaxt8k](https://media.oregonstate.edu/media/t/1_i9vaxt8k)

**Brittaney Nicole Davis (Nico)**

A scene from Star Trek III: The Search for Spock, in which the crew aboard the Enterprise returns to the planet Genesis to rescue Spock.

[https://media.oregonstate.edu/media/1\\_f9bpqsg0](https://media.oregonstate.edu/media/1_f9bpqsg0)

**Kelly Walls**

My final project is a 10-second animation of a snow globe being shaken. Using keytime animation, the snow globe is shaken side to side, and then the snow falls to the original position.

[https://media.oregonstate.edu/media/t/1\\_3deu3mv6](https://media.oregonstate.edu/media/t/1_3deu3mv6)

**Feipeng Yue**

Sun-Earth-Moon System !

[https://media.oregonstate.edu/media/t/1\\_cfd5qanv](https://media.oregonstate.edu/media/t/1_cfd5qanv)

**Li-Hsin, Chiang**

I crafted a glass bus stop that stands resilient in the rain, capturing reflections of the serene sky. Positioned on a lush lawn adorned with vibrant pink and yellow flowers, the scene exudes a harmonious blend of modernity and nature.

[https://media.oregonstate.edu/media/t/1\\_e2mauwq7](https://media.oregonstate.edu/media/t/1_e2mauwq7)