

Final Project Discussion

Final Project

- Today's focus: What we expect for your final project!



Luna Yang and Xuelin Yang, Fall 2021

Final Project

- First, some logistics:
 - PROPOSAL (Optional) due via Google Form Monday Nov 13 by 11:59 PM PST
 - **PROJECT due over Google Form THURSDAY Dec 14 by 11:59 PM PST**
- Deliverables:
 - **Final Image (MOST IMPORTANT)**
 - Written Report (pdf; can be very informal!)
 - Variant A Image (for our reference; doesn't need to look good!)
 - Variant B Image (for our reference; doesn't need to look good!)
 - Link to Google Drive with Blend file (for our reference)
- Grading:
 - Graded on a curve; sorted into “buckets”

Incompletes / Grade Improvements

- Ron might have mentioned that the final project due date is a “soft deadline”
- We are happy to give anyone extra time either:
 - via an incomplete “I” grade to finish up the project
 - by letting them improve their project if they want a higher grade

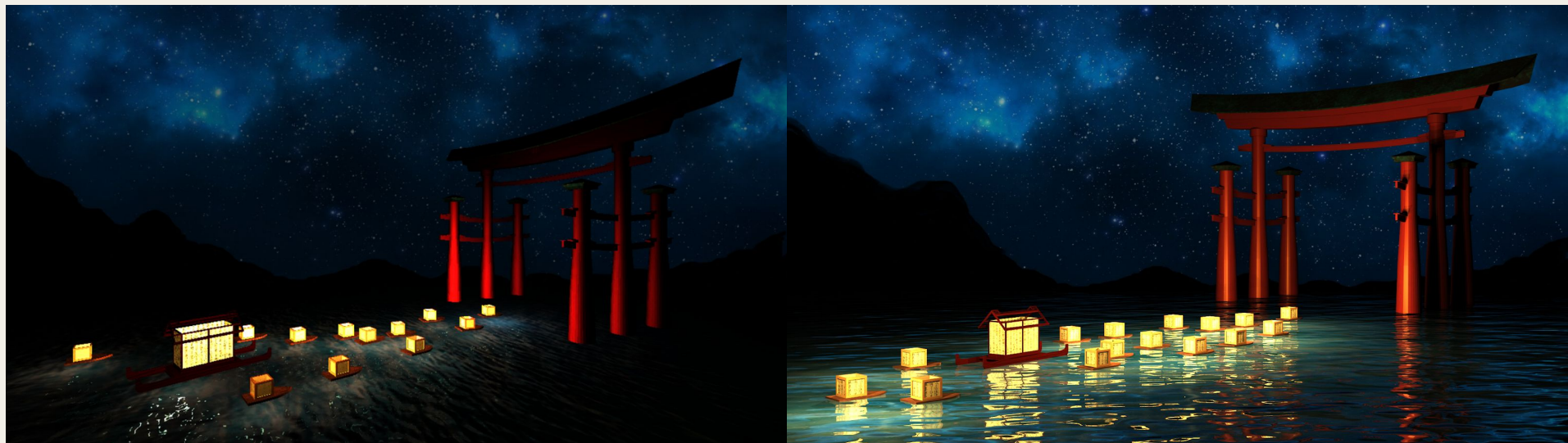
Just need to keep in touch with Ron and me over email!

- How it'll look on your transcript:

<u>Course</u>		<u>Cmpt</u>	<u>Title</u>	<u>Attempted</u>	<u>Earned</u>	<u>Grade</u>
CS	148	LEC	INTRODUCTION TO COMPUTER GRAPHICS AND IMAGING Previous Grade(s): A- Ron Fedkiw	4.00	4.00	A

Final Project Expectations

- **MUST BE RAY TRACED**



Scanline Rendered (Blender Eevee)

Ray Traced (Blender CYCLES)

Final Project Expectations

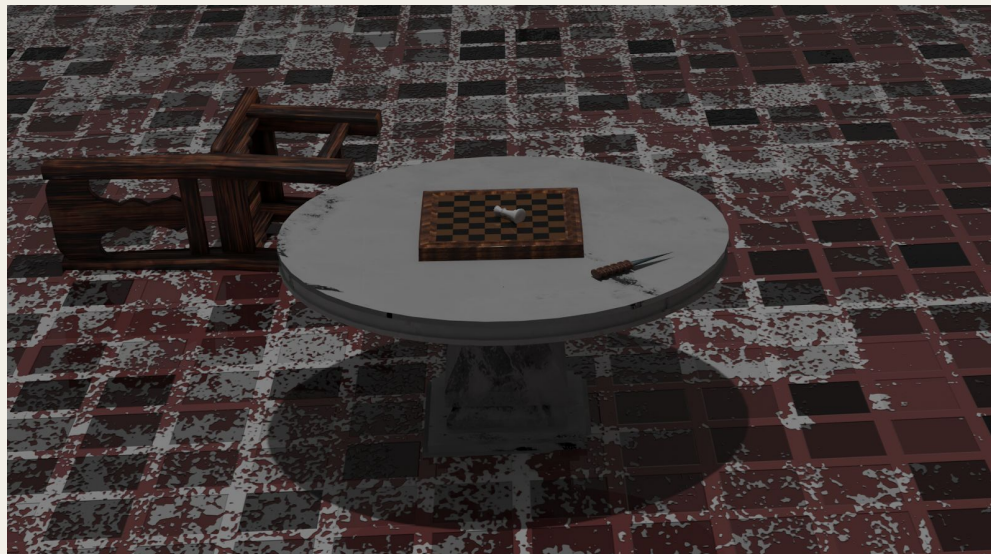


Online Rendered (Blender Eevee)

Ray Traced (Blender CYCLES)

Ray Traced can still look Scanline Rendered!

- **Simply using Blender Cycles IS NOT ENOUGH!**
- **Too simple of a scene composition or lack of lighting can result in your ray traced image looking like a scanline render!**



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Leverage the Power of Ray Tracing!

- **YOUR JOB: Make it clear to us that you learned the advantages of RAY TRACING!**
- soft shadows, reflections, transmissions, color bleeding, depth of field, etc!



Ran Li,
Summer 2022

Leverage the Power of Ray Tracing!

- **YOUR JOB: Make it clear to us that you learned the advantages of RAY TRACING!**
- Clear lighting: utilize different types of lights!



**Bohan Wu,
Fall 2021**

Leverage the Power of Ray Tracing!

- **YOUR JOB:** Make it clear to us that you learned the advantages of **RAY TRACING!**
- Don't need many light sources if you show you understand lighting!



Xin (Lucy) Lin and
Yige Liu,
Fall 2021

Leverage the Power of Ray Tracing!

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Helena Roberts-Mataric,
Fall 2020

Leverage the Power of Ray Tracing!

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Bradford Lin and
Wilson Liang,
Fall 2021

Leverage the Power of Ray Tracing!

- **YOUR JOB:** Make it clear to us that you learned the advantages of **RAY TRACING!**
- Good use of volume rendering here to show the shape of the light!



Bradford Lin and
Wilson Liang,
Fall 2021

Leverage the Power of Ray Tracing!

- **YOUR JOB:** Make it clear to us that you learned the advantages of **RAY TRACING!**
- HDRI and Nishita Sky models can add environmental lighting!



Grace Alwan and
Carolyn Qu,
Fall 2021

Leverage the Power of Ray Tracing!

- **YOUR JOB:** Make it clear to us that you learned the advantages of **RAY TRACING!**
- Reflections/Refractions/Transmissions: when in doubt, add glass!



Grace Alwan and
Carolyn Qu,
Fall 2021

Leverage the Power of Ray Tracing!

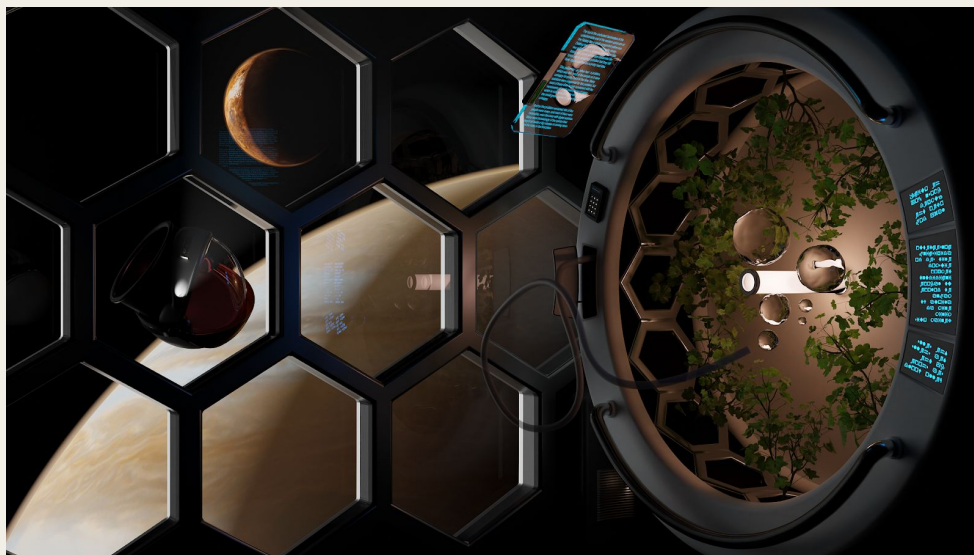
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**Danielle Tang,
Fall 2021**

Leverage the Power of Ray Tracing!

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- Reflections/Refractions/Transmissions: when in doubt, add glass!



Ben Hoskins,
Fall 2021

Leverage the Power of Ray Tracing!

- **YOUR JOB:** Make it clear to us that you learned the advantages of **RAY TRACING!**
- Reflections/Refractions/Transmissions: water materials work too!



**Vlad Ankudinov,
Fall 2021**

Leverage the Power of Ray Tracing!

- **YOUR JOB:** Make it clear to us that you learned the advantages of **RAY TRACING!**
- Reflections/Refractions/Transmissions: can also get creative!



**Nova Halavins,
Summer 2022**

Leverage the Power of Ray Tracing!

- **YOUR JOB:** Make it clear to us that you learned the advantages of **RAY TRACING!**
- Depth of field as well!



**Nova Halavins,
Summer 2022**

Leverage the Power of Ray Tracing!

- **YOUR JOB: Make it clear to us that you learned the advantages of RAY TRACING!**
- Good placement of objects leads to visible traces of color bleeding!



Alex Oseguera and
Jay Saleh,
Fall 2021

Geometry/Textures

- Impressive **geometry/textures can also carry the image!**
- Reminder: can use object files you download from online, but **the focus + half of the main geometry in the scene must be your own!**



Sifan Ye,
Fall 2020

Geometry/Textures

- Impressive **geometry/textures can also carry the image!**
- Reminder: can use object files you download from online, but **the focus + half of the main geometry in the scene must be your own!**



Qi Zhou and
Junrui Lyu,
Summer 2022

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Michelle Lok and
Zongdi Xu,
Summer 2022

Geometry/Textures

- Impressive **geometry/textures can also carry the image!**
- Reminder: can use object files you download from online, but **the focus + half of the main geometry in the scene must be your own!**



Amanda Huynh and
Anna Chang,
Fall 2021

Simple Geometry

- That said, making **simple geometry** is **still fine** if you can make it **show off ray tracing!**
- Just remember to **cite any tutorials you follow in your report**



Tracy Cai and
Xiaohai Lu,
Fall 2021

Simple Geometry

- That said, making **simple geometry** is **still fine** if you can make it **show off ray tracing!**
- Just remember to **cite any tutorials you follow in your report**



Catherine Huang and
Yara Sevilla,
Fall 2021

Simple Geometry

- That said, making **simple geometry** is **still fine** if you can make it **show off ray tracing!**
- **Low-poly** is fine too!



Yifan Wang
Fall 2020

Project Proposal

- **Due via Google Form next Monday by 11:59 PM PST**
- **OPTIONAL**
- But gives 5 “extra credit” points to make up for any missed points
- Motivational image(s) + 1-2 paragraphs is fine
- Feedback will be sent over the course of the week from a random CA
- **YOU ARE NOT COMMITTED TO WHAT YOU PROPOSE!**

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- But gives 5 “extra credit” points to make up for any missed points
- Motivational image(s) + 1-2 paragraphs is fine
- Feedback will be sent over the course of the week from a random CA
- **YOU ARE NOT COMMITTED TO WHAT YOU PROPOSE!**

- That said, if you do end up recreating your motivational image(s)...

Project Proposal

- **Due via Google Form next Monday by 11:59 PM PST**
- We'll be very impressed if you manage to recreate a complex motivational image!

Cameron Mohne and Nicholas Vo, Fall 2021



Project Proposal

- **Due via Google Form next Monday by 11:59 PM PST**
- We'll be very impressed if you manage to recreate a complex motivational image!

Xi Yan and Siyun Li, Fall 2021



Project Proposal

- **Due via Google Form next Monday by 11:59 PM PST**
- Sometimes though, the scene can be lacking if you can't recreate every element of it...

Walker Stewart and Will Coors, Fall 2022



Project Proposal

- **Due via Google Form next Monday by 11:59 PM PST**
- If you can't recreate the full scene, then get creative!

Romrawin (Jin) Chumpu, Summer 2023



Project Proposal

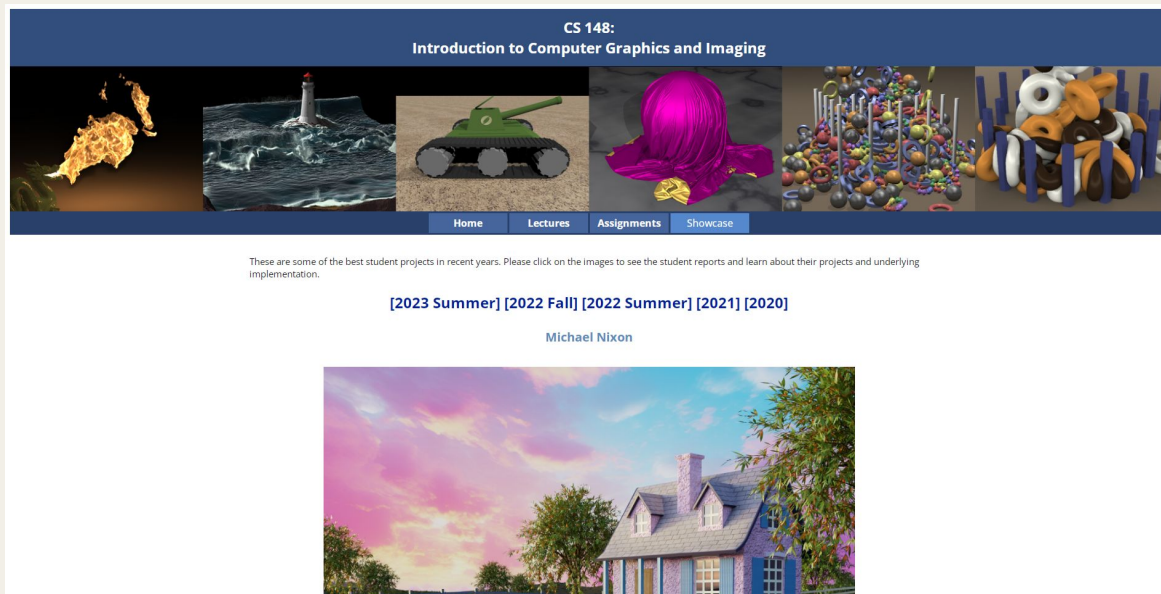
- **Due via Google Form next Monday by 11:59 PM PST**
- Your idea can be creative, but you might want to iterate with us in OH!
- Ask your friends, family, etc for their opinions too!



**Firat Taxpulat,
Summer 2022**

Project Showcase

- **Use the showcase on the website for ideas!**
- Click on each image to see the student reports

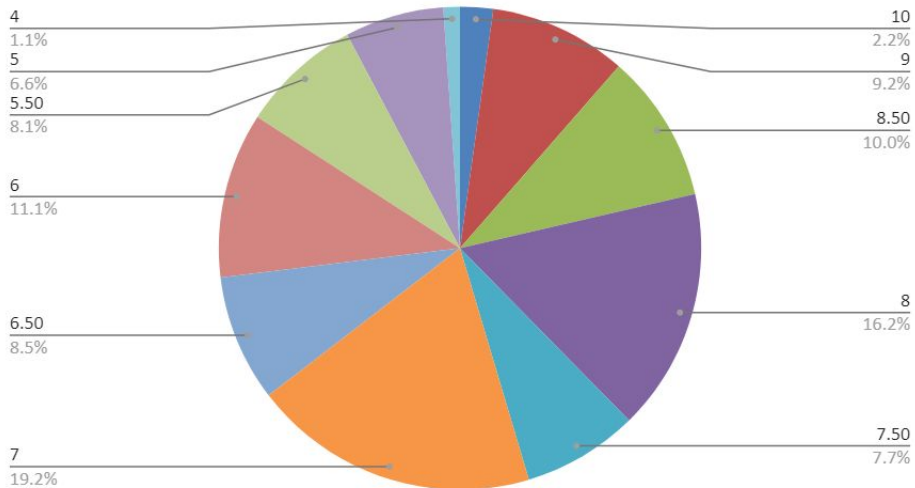


The screenshot shows the CS 148 website interface. At the top, a dark blue header contains the text "CS 148: Introduction to Computer Graphics and Imaging". Below the header is a horizontal row of six small images representing different student projects: a fiery landscape, a lighthouse on a rocky island, a green tank, a pink hair-like structure, a colorful fruit basket, and a cartoon clownfish. Below these images is a navigation bar with buttons for "Home", "Lectures", "Assignments", and "Showcase". Underneath the navigation bar, a paragraph of text reads: "These are some of the best student projects in recent years. Please click on the images to see the student reports and learn about their projects and underlying implementation." Below this text is a row of year links: "[2023 Summer] [2022 Fall] [2022 Summer] [2021] [2020]". The name "Michael Nixon" is displayed below the year links. At the bottom of the screenshot is a large, vibrant image of a blue house with a chimney, set against a colorful, sunset-like sky with pink and purple clouds.

Final Project Buckets Fall 2022

- Across 477 students last year

Project Buckets



Grades

