

CS 148 Final Project Report

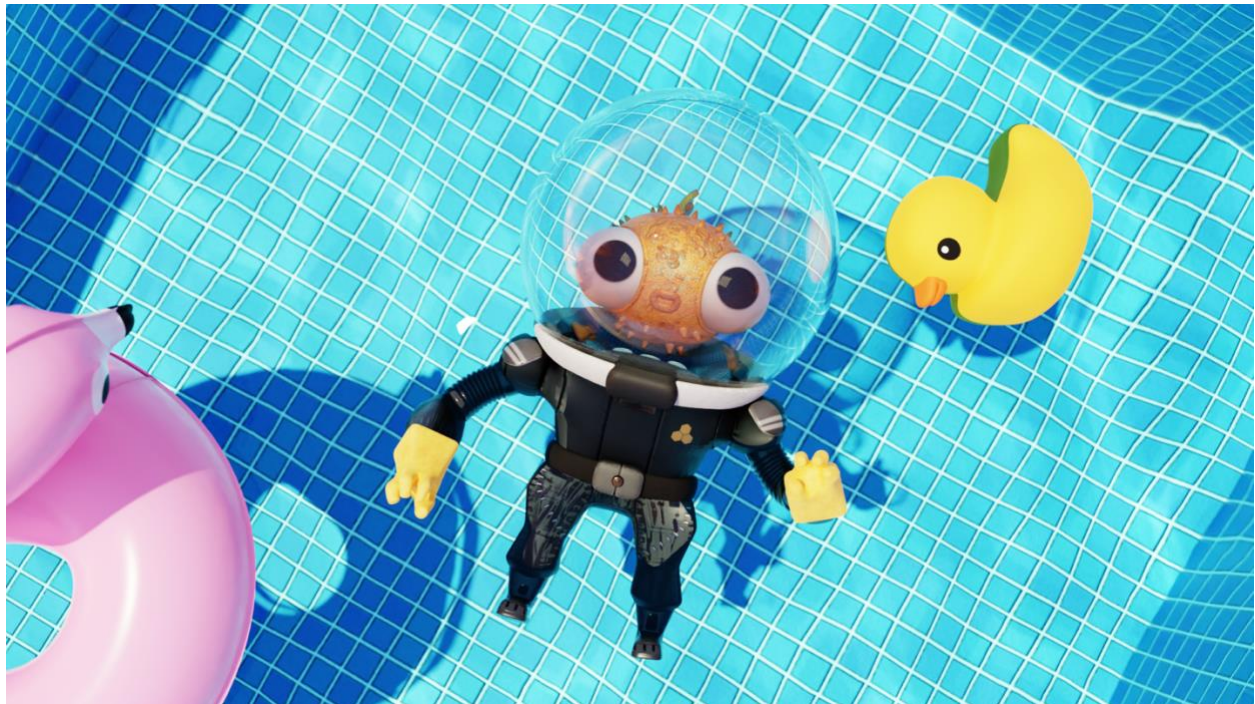
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Inspiration



I want to create a scene that includes a fish head robot character laying in a pool. I want to challenge myself through this project by experimenting more with texturing and procedural shading.

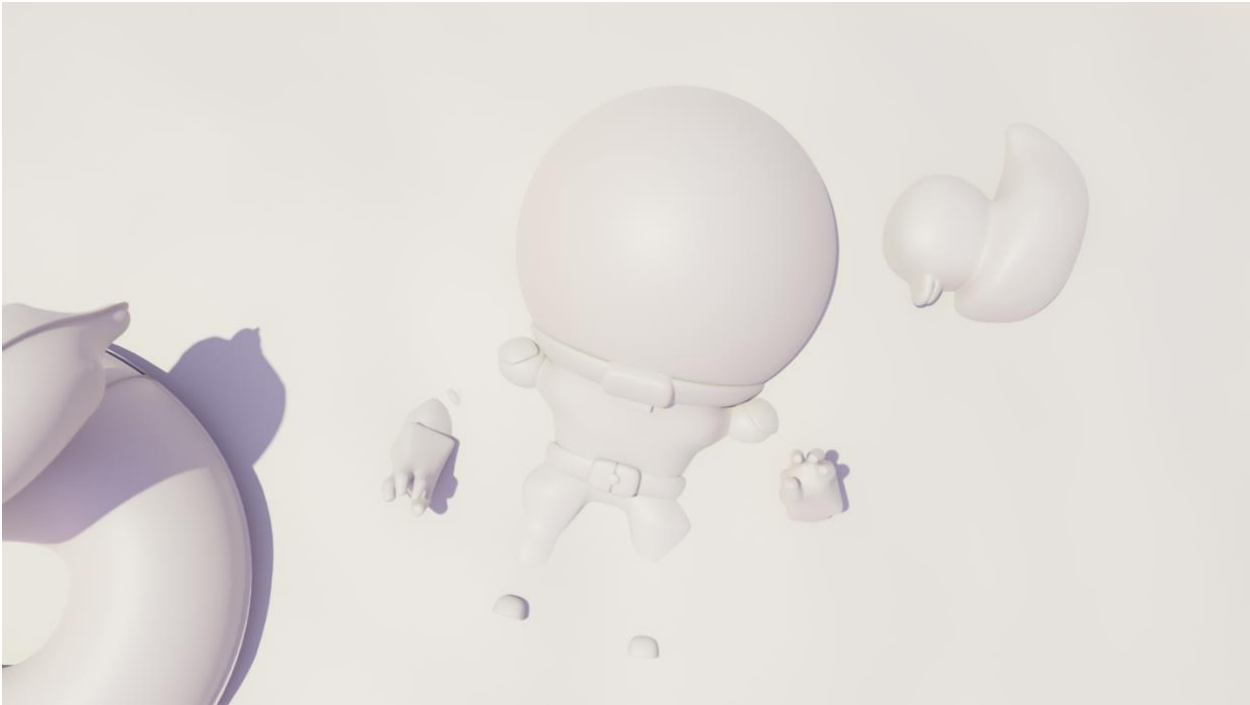
Final Image



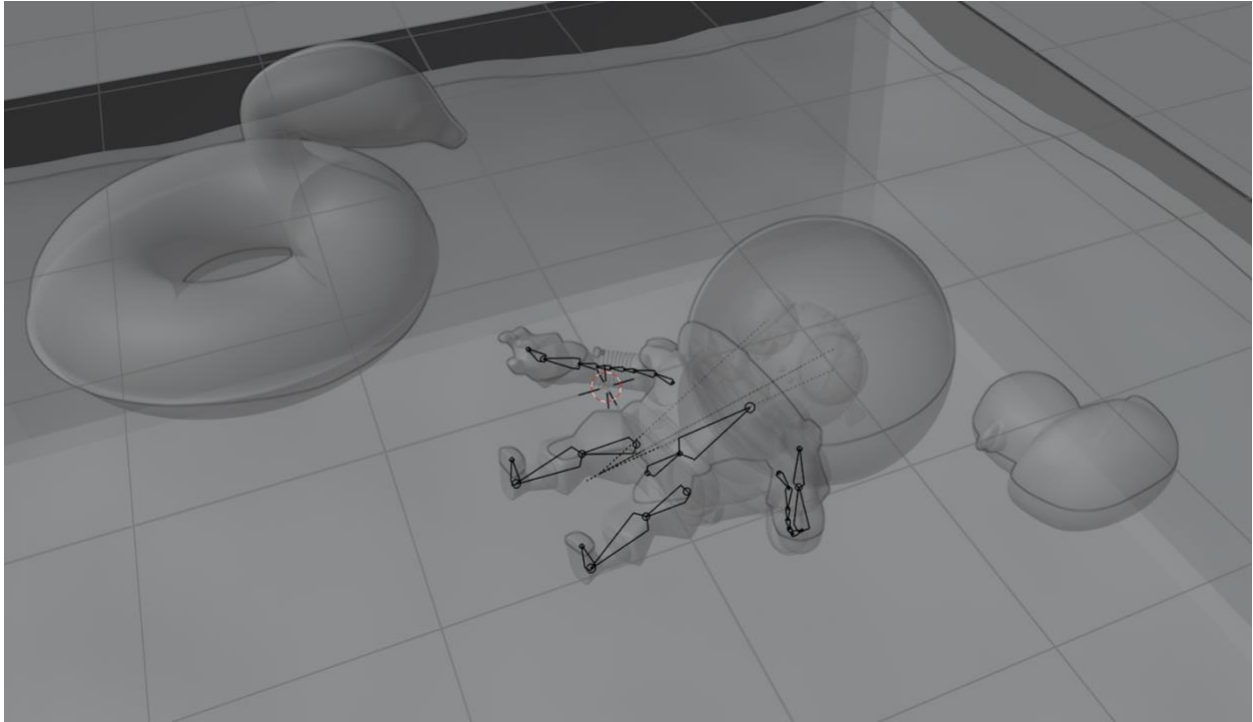
Variant A



Variant B



Since a lot of meshes are hidden by the helmet and water with the overwritten white texture, I also took a screenshot of the scene in Blender viewport with passthrough enabled.



Another variant with camera underwater



Project Requirement Fulfillment

Geometry

All geometry including the character model was created from scratch.

UV Mapping and Texturing

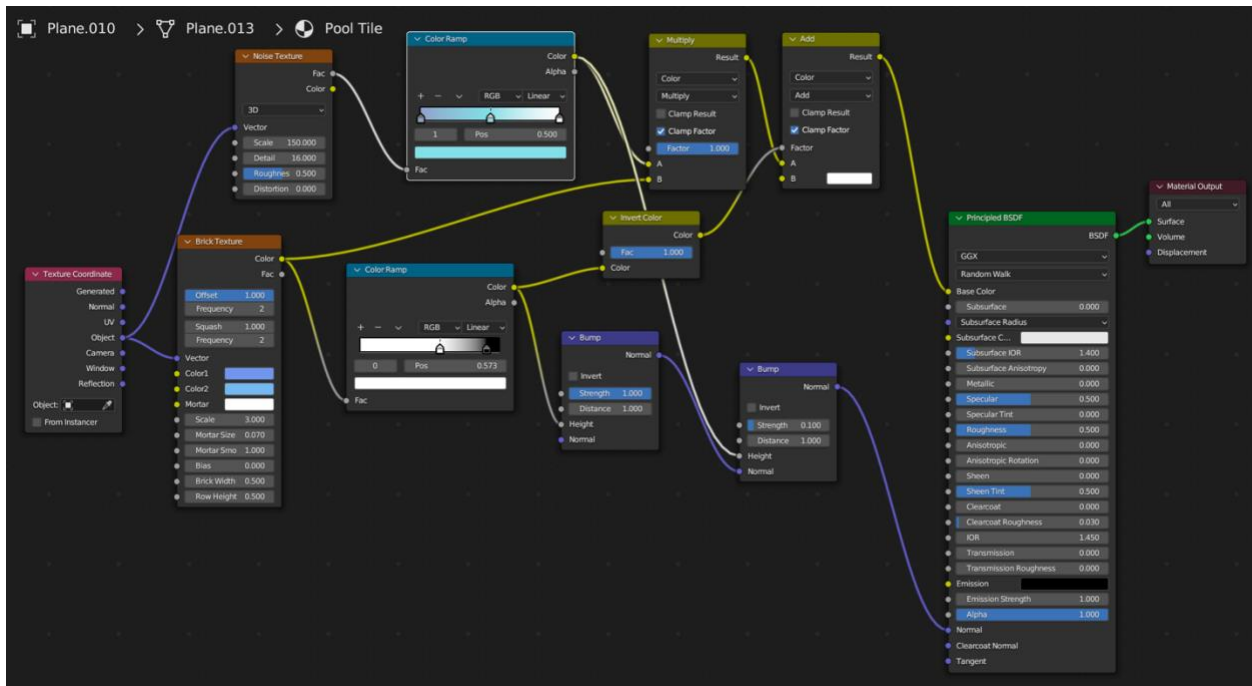
All UV mapping and textures were created from scratch. I used Substance Painter to create the textures for the character.



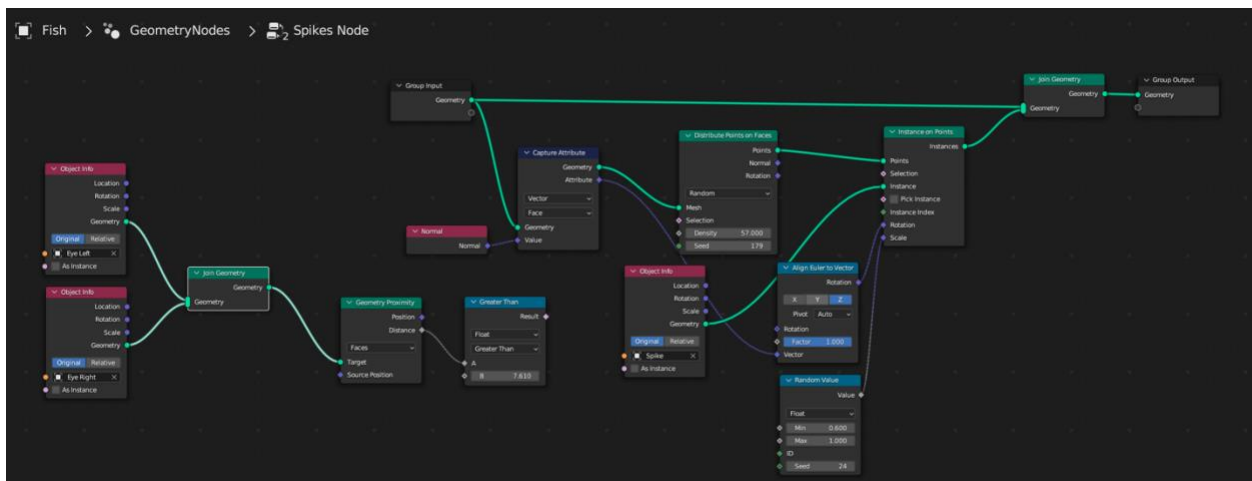


Blender/Cycles advanced feature

I used depth of field to keep the character in focus. I created a simple rig to pose the character. I also enabled caustics to achieve realistic shadows underwater. I used cloth simulation to inflate the flamingo floaty. For the pool tiles I used shader node to procedurally generate the texture.



I used geometry node to generate the spikes on the pufferfish.



Tutorials Referenced:

Eyeball shader

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

Stylized pool floaties modeling

<https://www.youtube.com/watch?v=Od158gQmGVo>

Caustics

<https://www.youtube.com/watch?v=xICgm5-SYRU>