

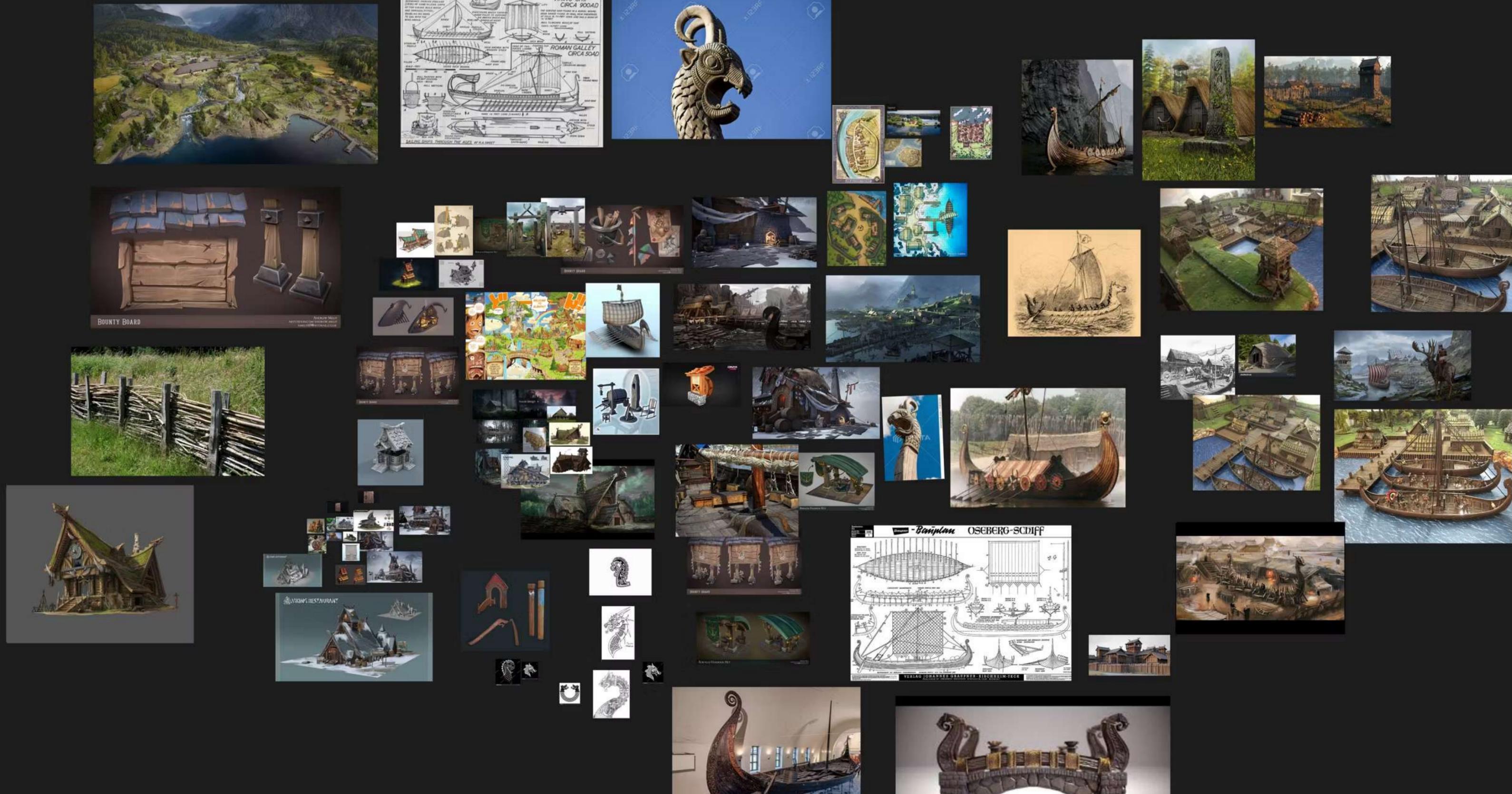
Term 1 FINAL Project BREAKDOWN

Learning Objectives

My main objective from this project is to learn Unreal Engine so that I can create large-scale environments, which I will then use in Houdini to create large-scale simulations, such as tornadoes, volcano explosions, and large-scale water simulations. Another goal of mine to achieve from this project is:

- Time management—I always think that I will do my work in a timely and manageable manner, but I always end up procrastinating, thus leading to me doing everything at the last minute, so if I can improve on that, it will be a great improvement for me.
- Presentation of work—even if I somehow complete my work promptly, I have a hard time presenting it appealingly. So I would love to learn how to present my work in such a way that it engages the people seeing my work.





Reference Board



The Enviornment

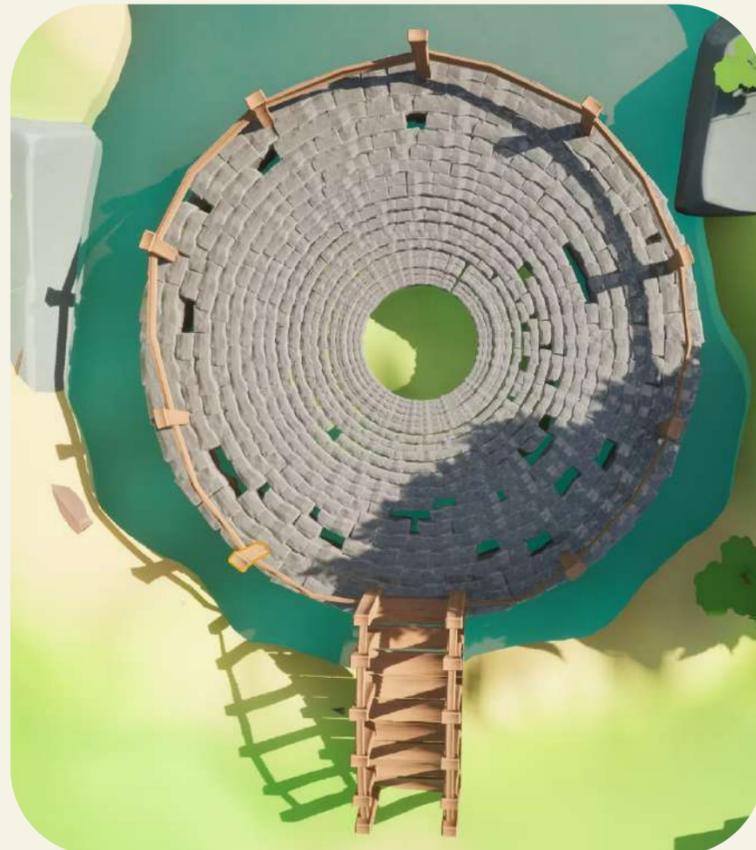
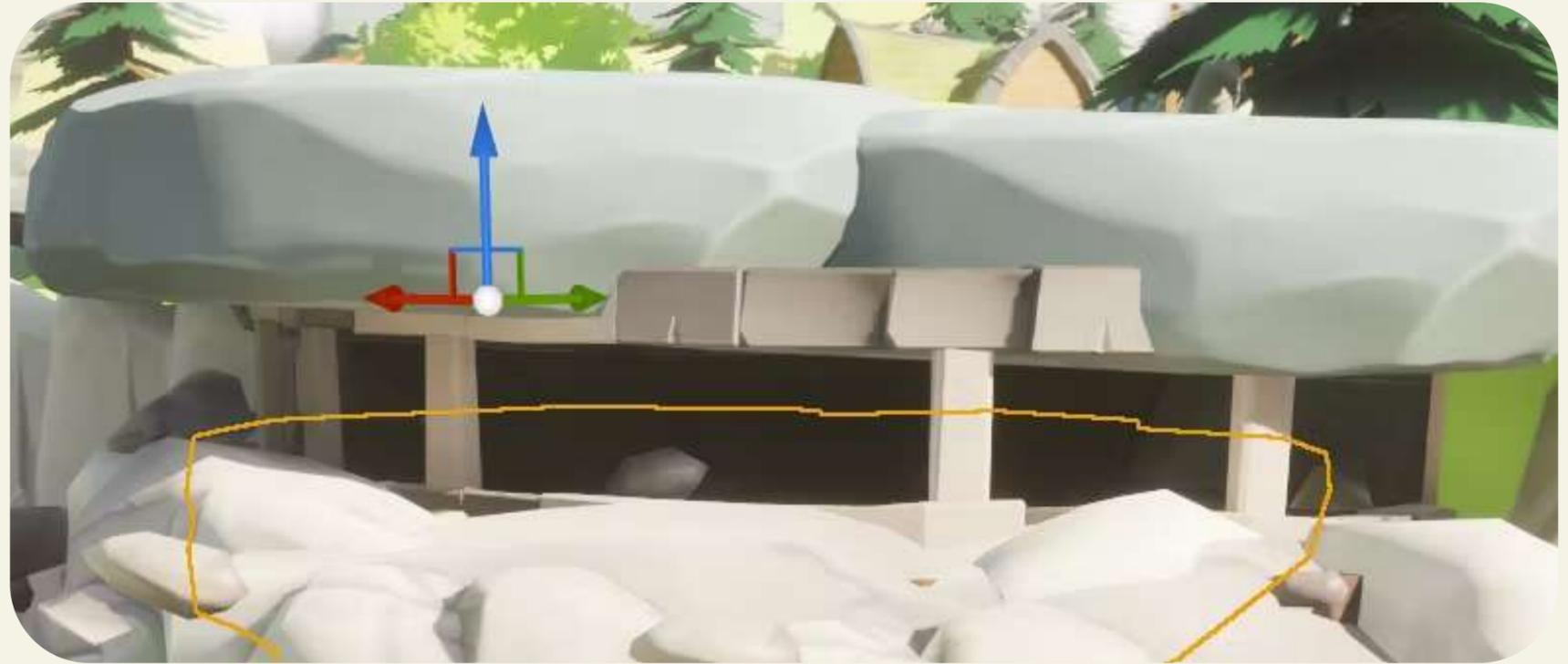
I wanted to create floating islands in the sky with Viking elements on them, with a cosy and inviting feel to it, thus, my choice was to make it stylised, and I wanted it to kind of be like the Viking heaven Valhalla. That's why I decided on bright colours, a foggy yet warm look, and a stylised approach.



KIT-Bash Building Elements

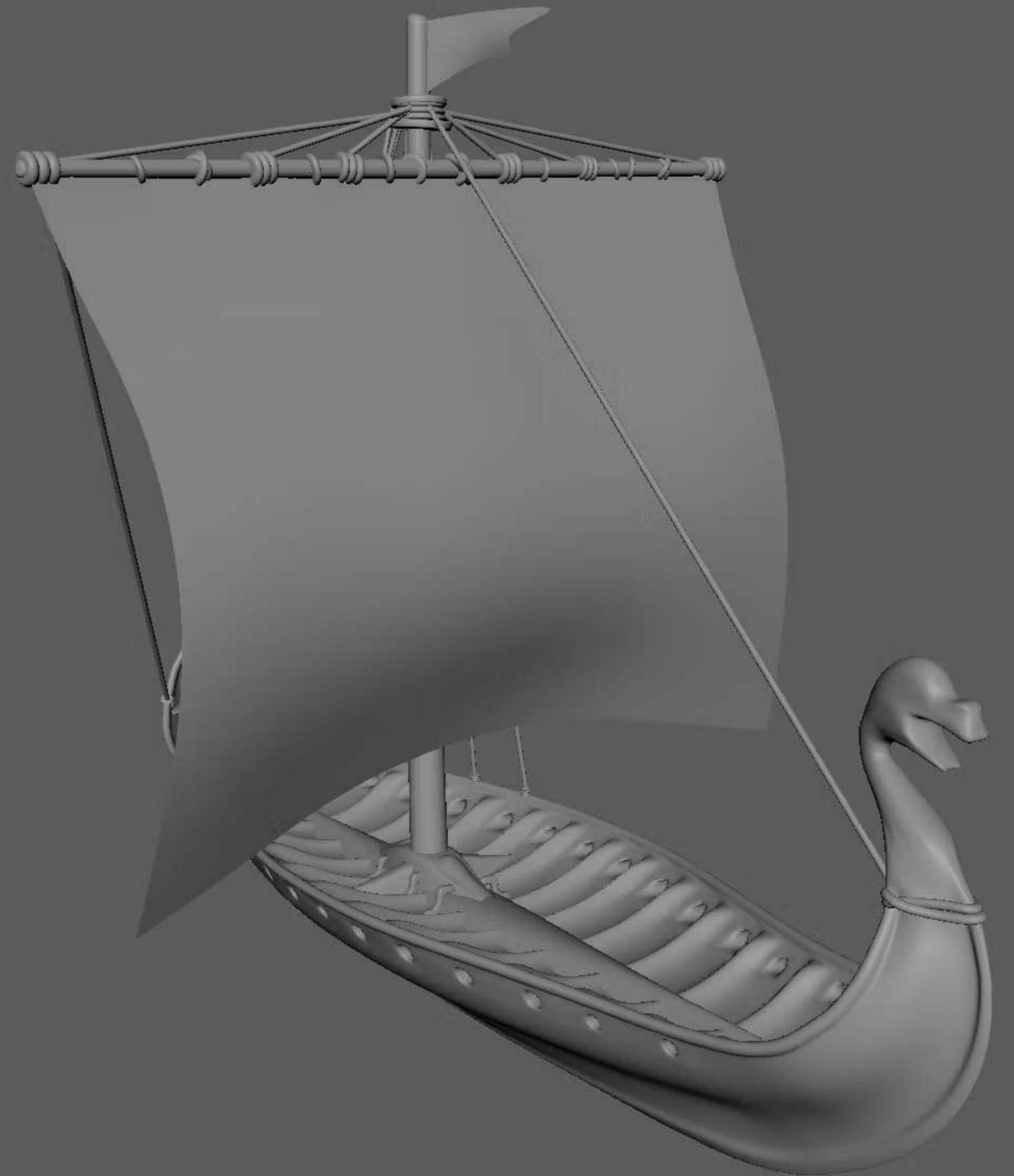


OTHER KIT-Bash Elements

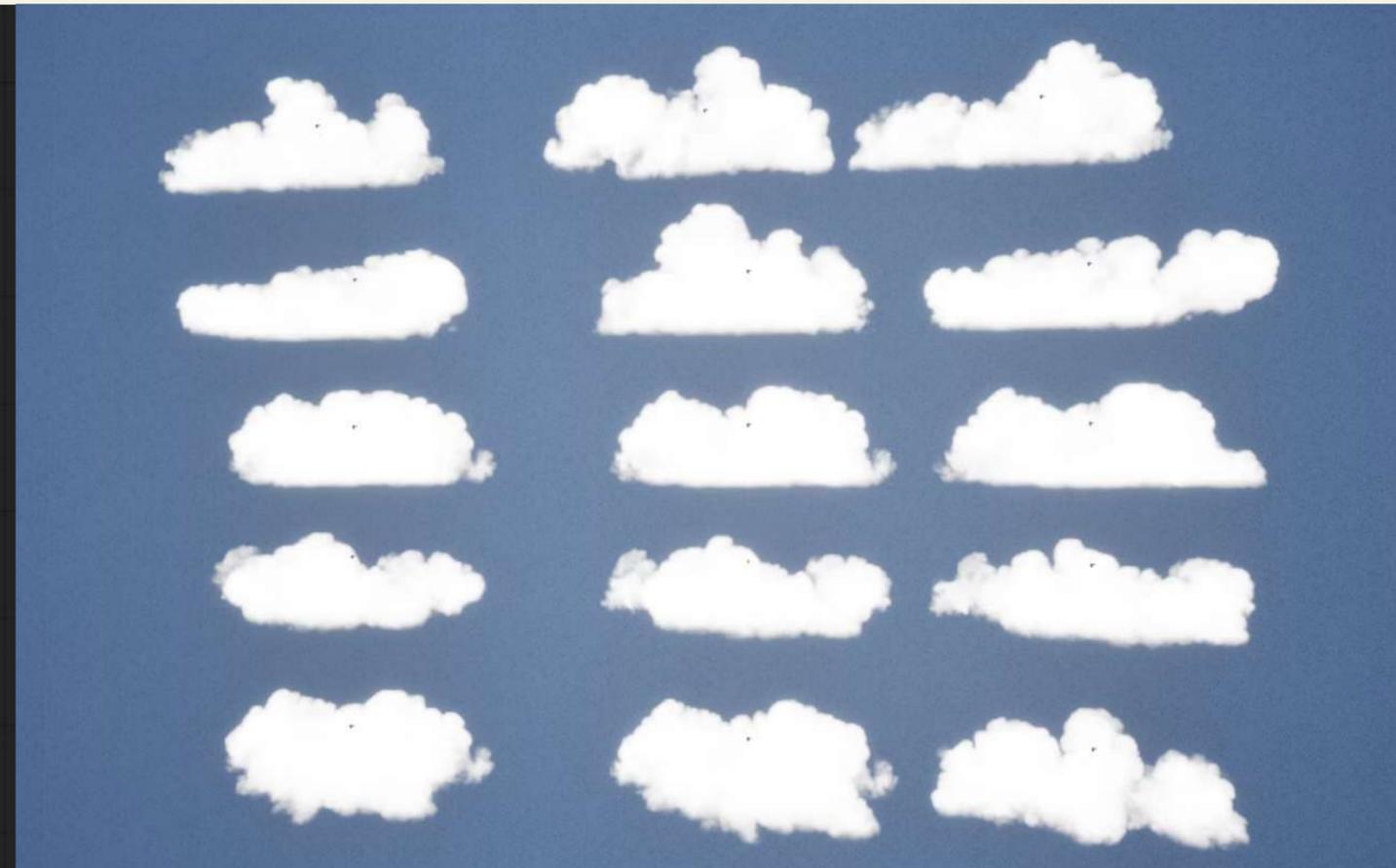
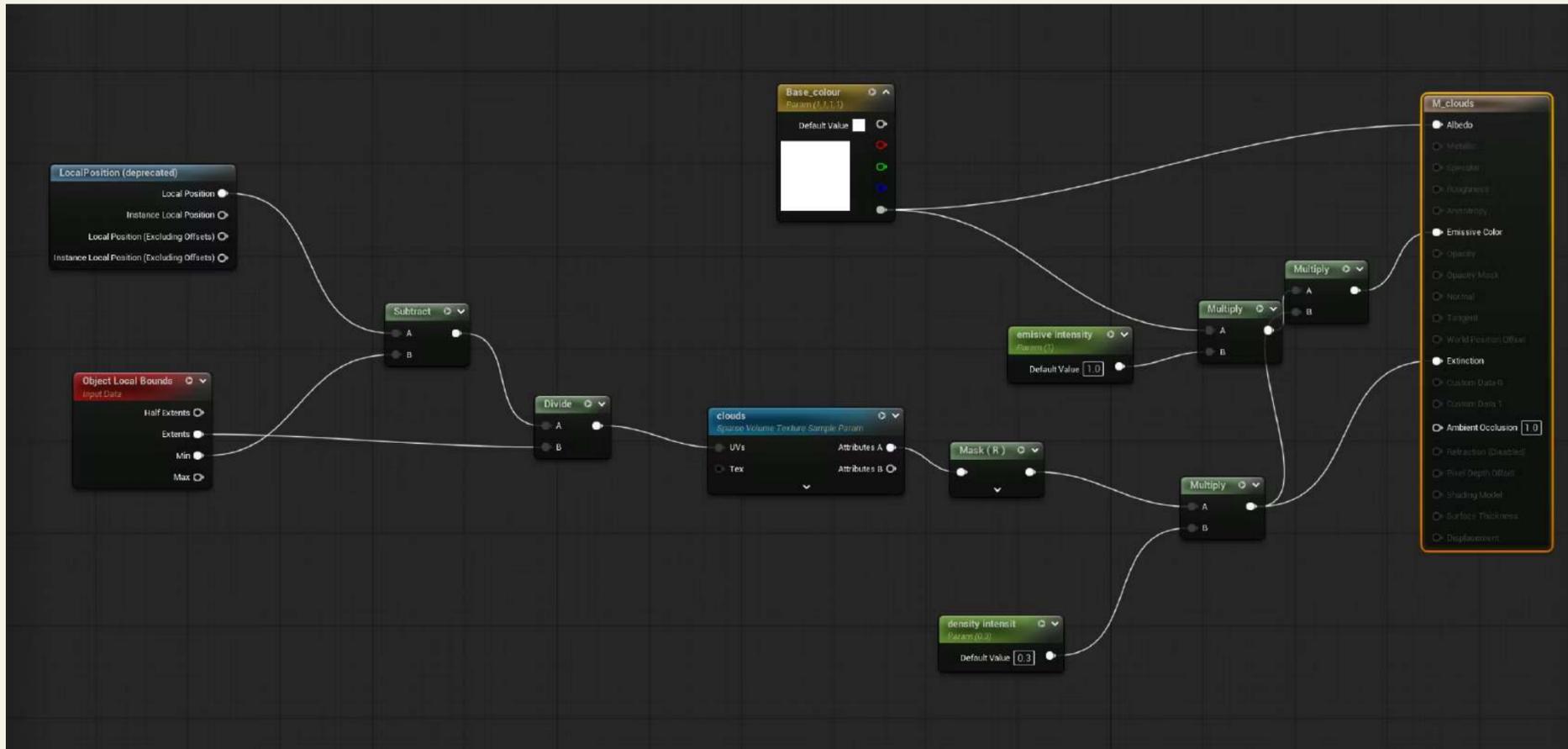


SHIP MODEL

Modelled a ship but ended up using one from FAB because it looked more like what I wanted, and mainly didn't have time to texture this boat.



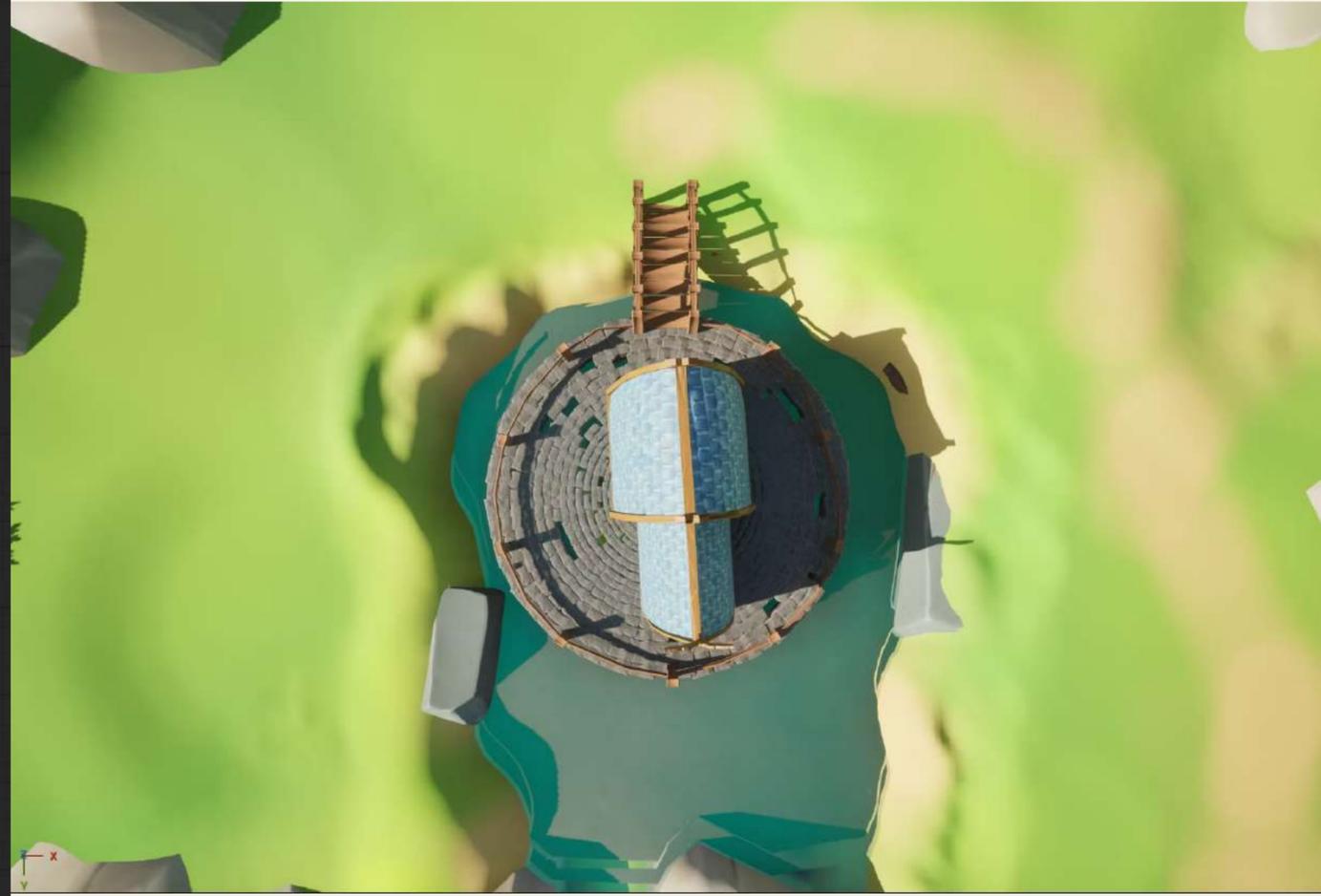
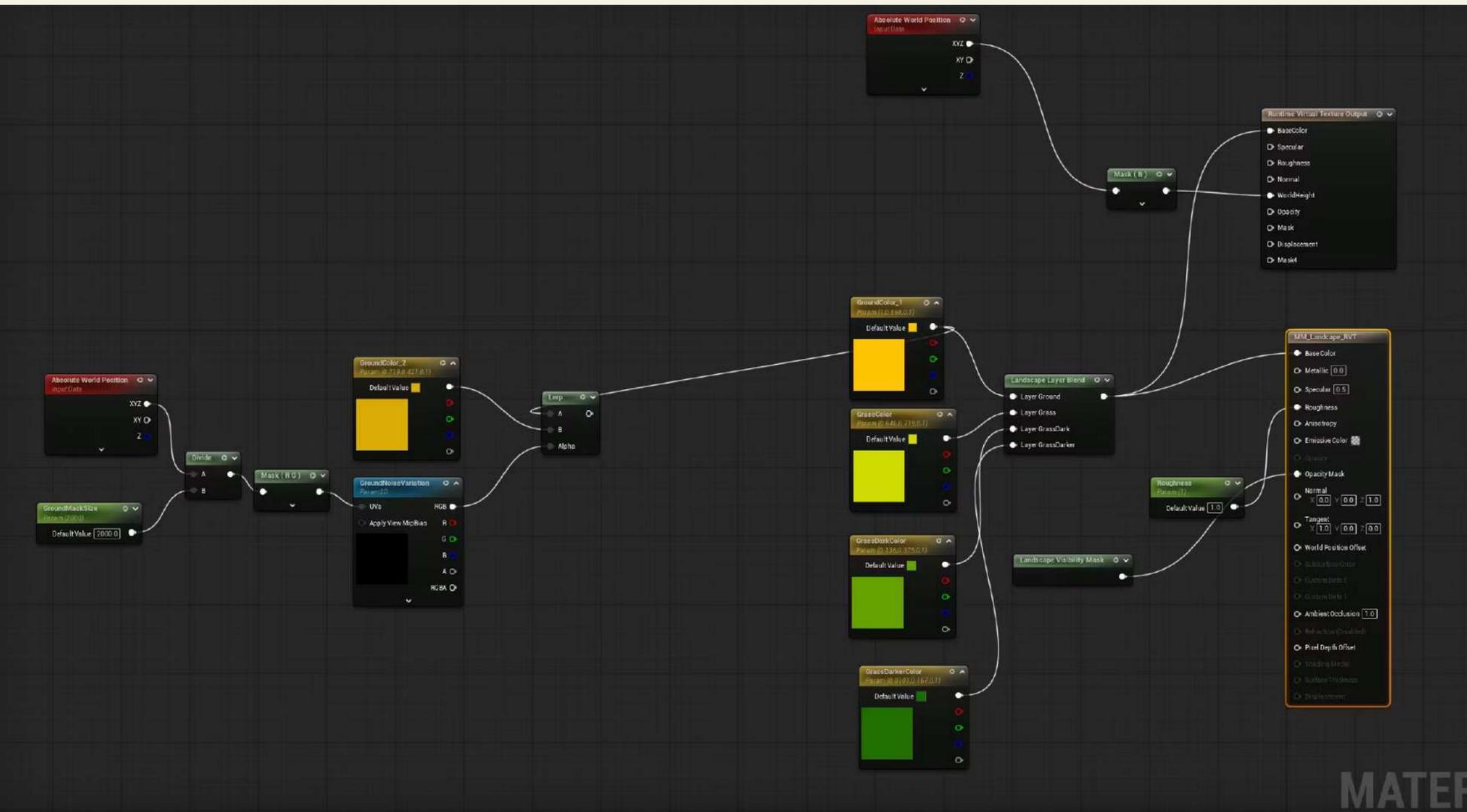
Clouds



SHADER NETWORK

RENDER

LANDSCAPE



SHADER NETWORK

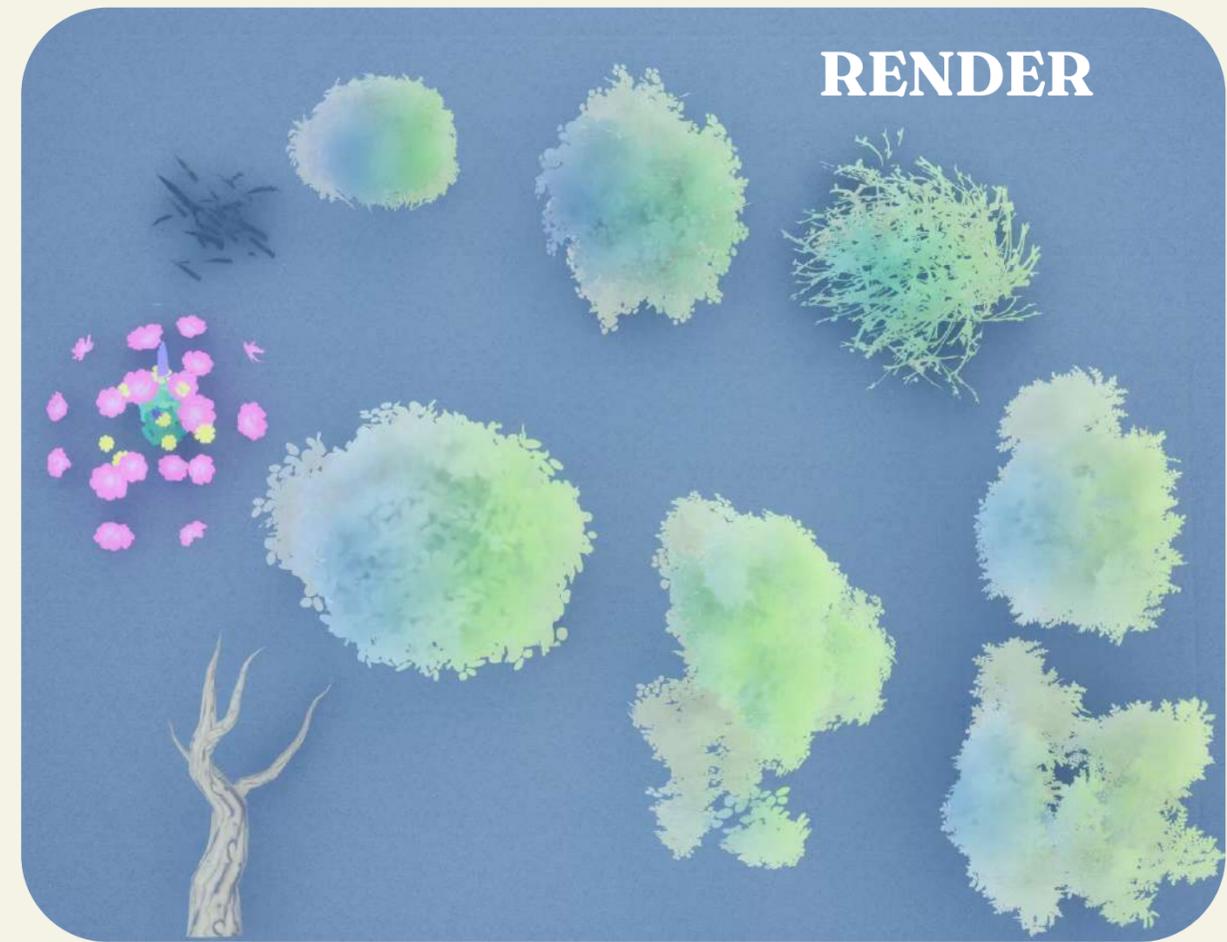
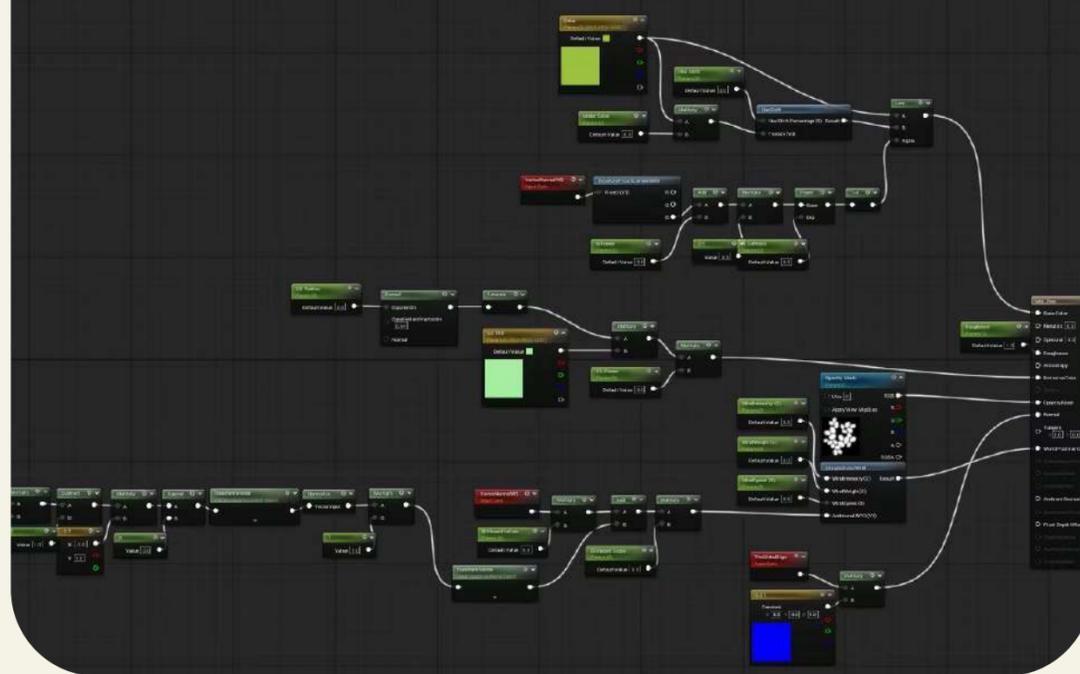
RENDER

FOLIAGE

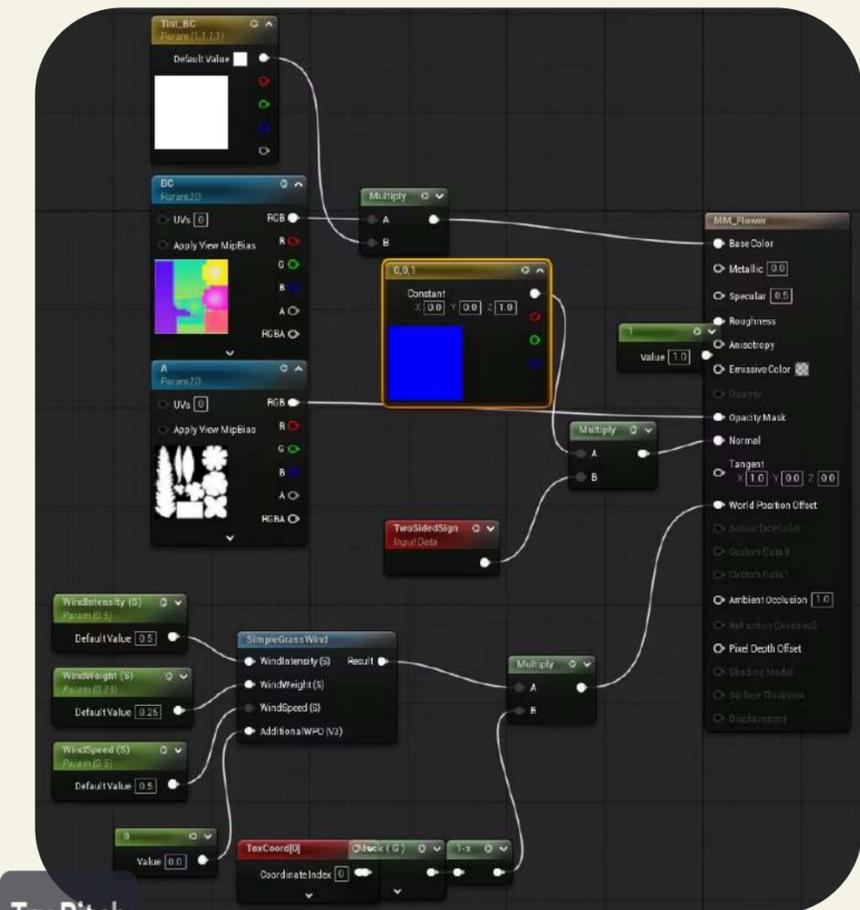


BARK SHADER

TREE LEAF SHADER

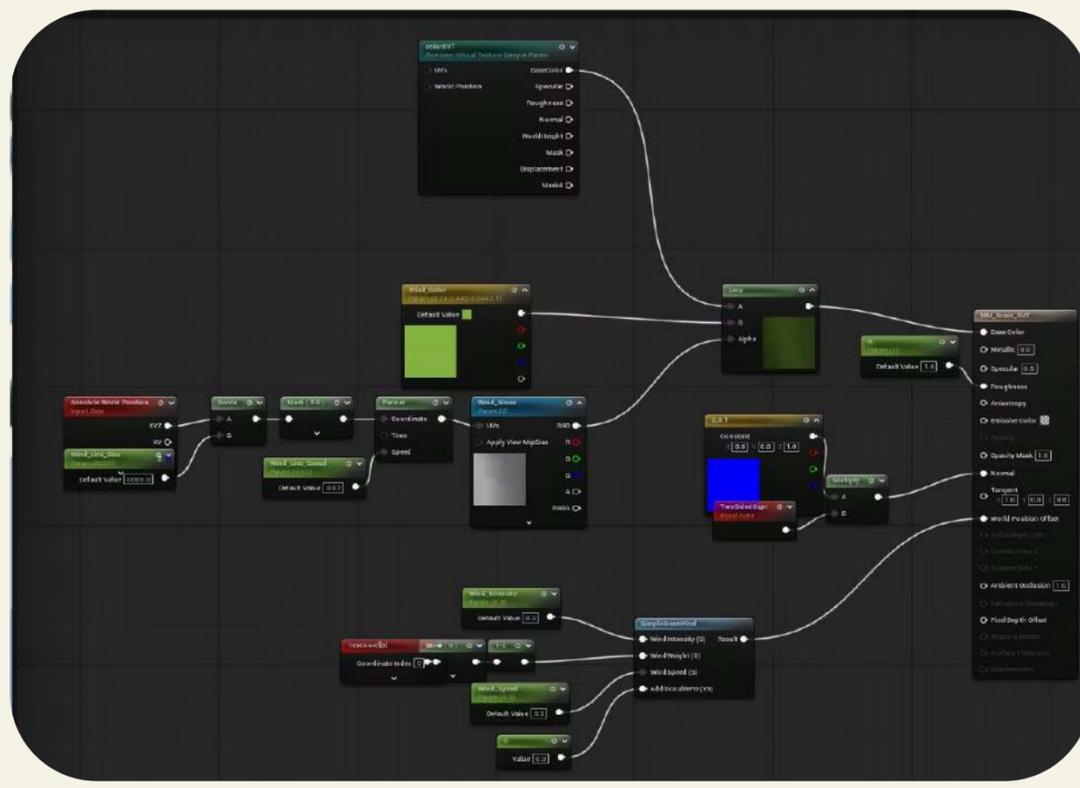


RENDER



Try Pitch

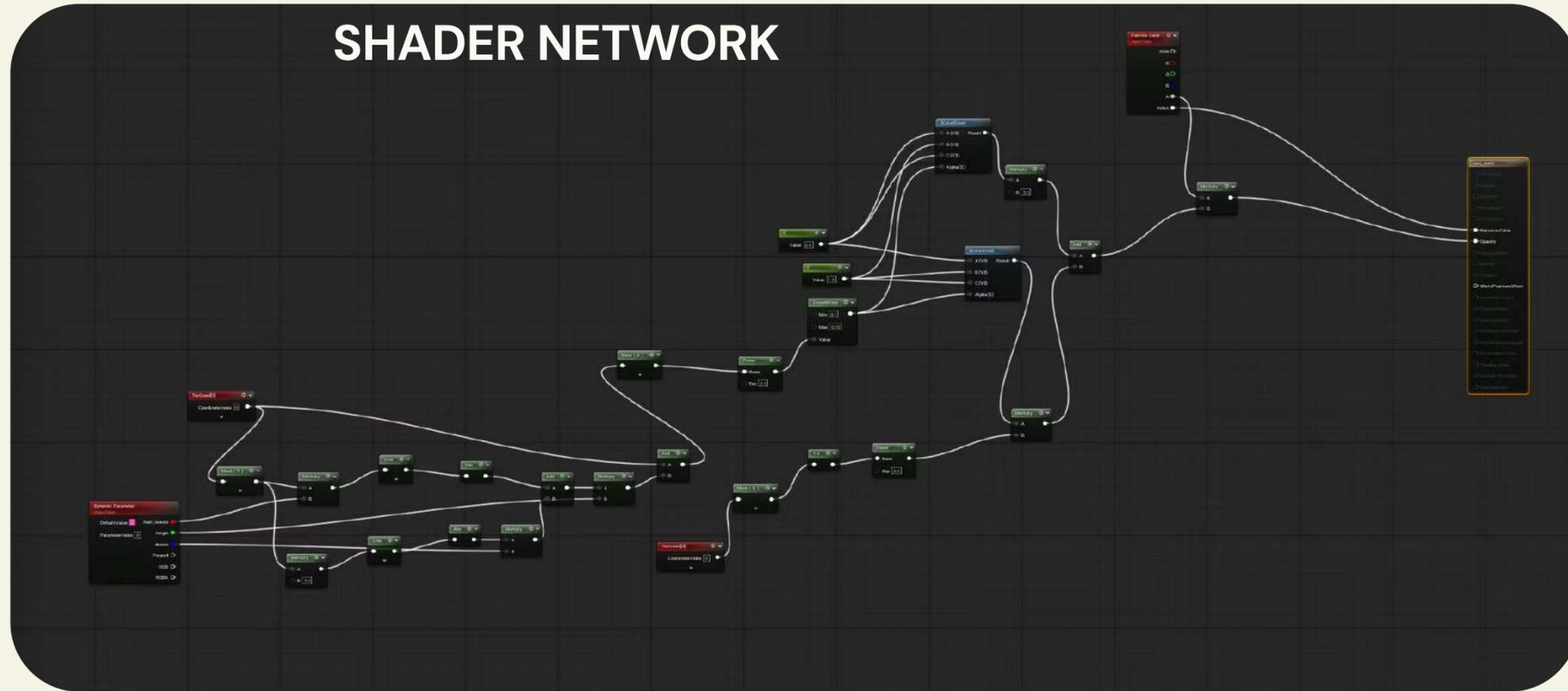
FLOWER SHADER



GRASS SHADER

WATERFALL

SHADER NETWORK



FX NETWORK

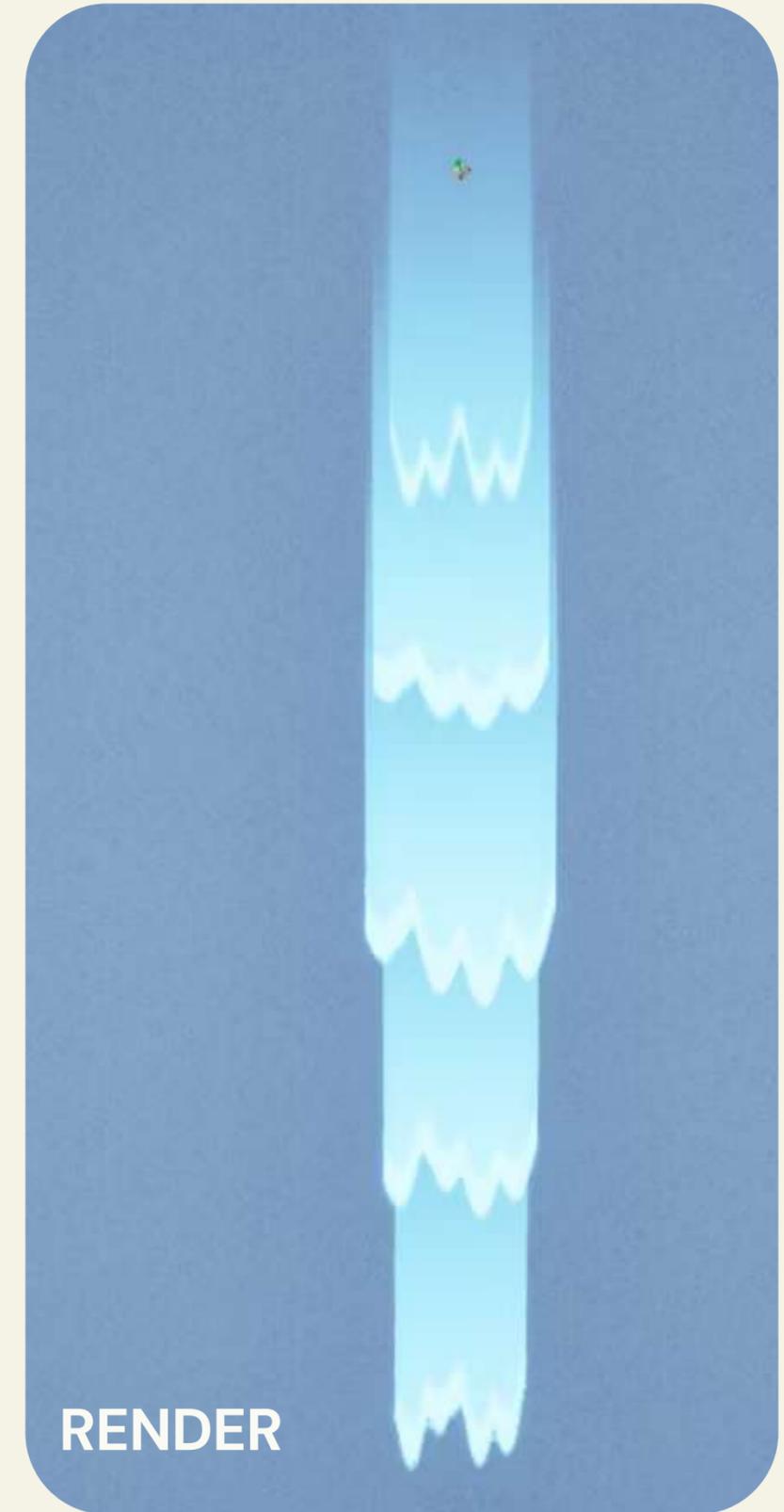
FX

- Properties
- User Parameters
- System Spawn
- System Update
- System State

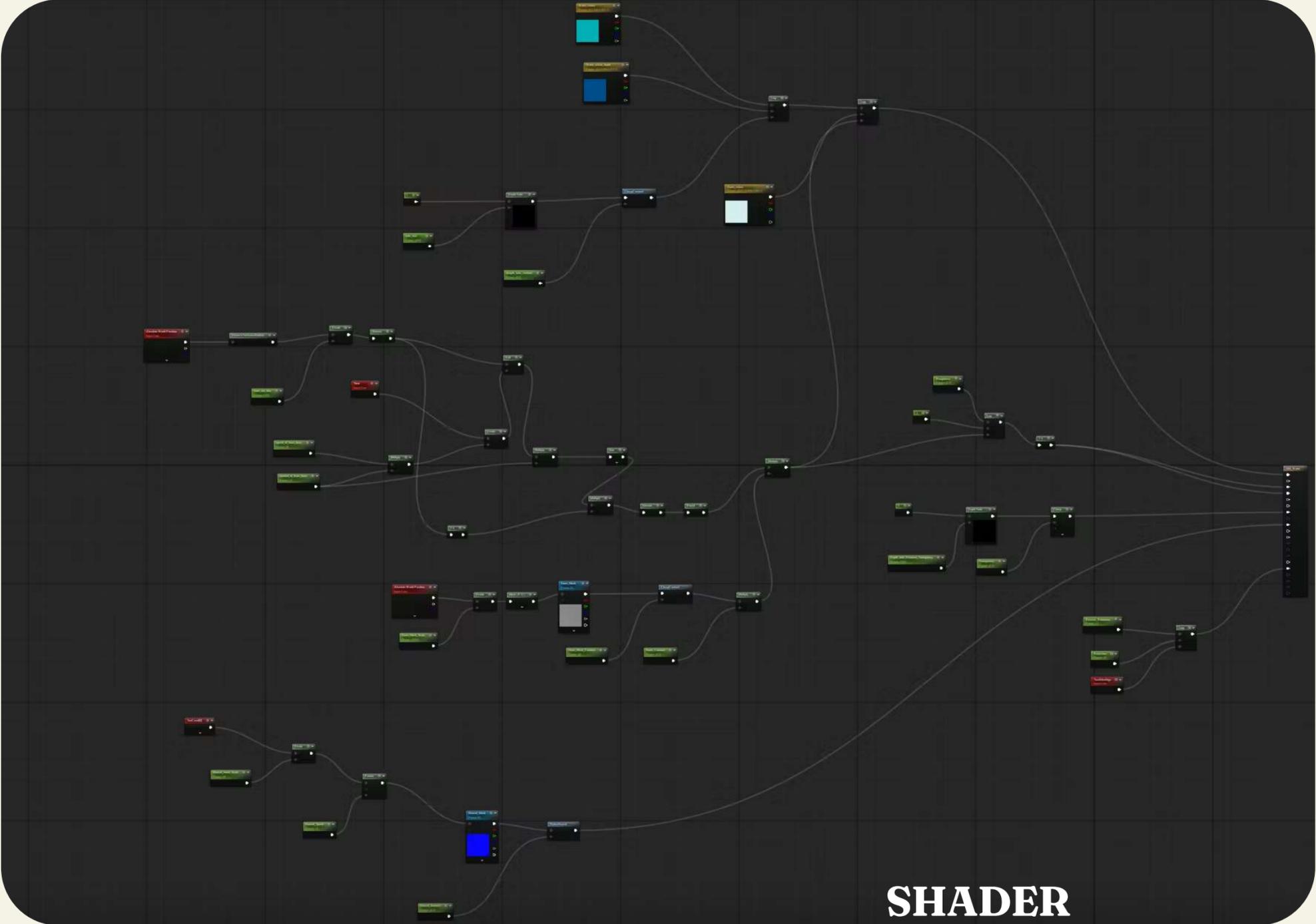
falling_water

- Properties CPU
- Emitter Summary
- Emitter Spawn
- Emitter Update
 - Emitter State: Self Infinite
 - Spawn Rate
- Particle Spawn
 - Initialize Particle
 - Add Velocity: Linear
 - Align Sprite to Mesh Orientation
 - Dynamic Material Parameters
- Particle Update
 - Particle State
 - Solve Forces and Velocity
 - Scale Color
- Render
 - Sprite Renderer

RENDER



INTERACTIVE WATER

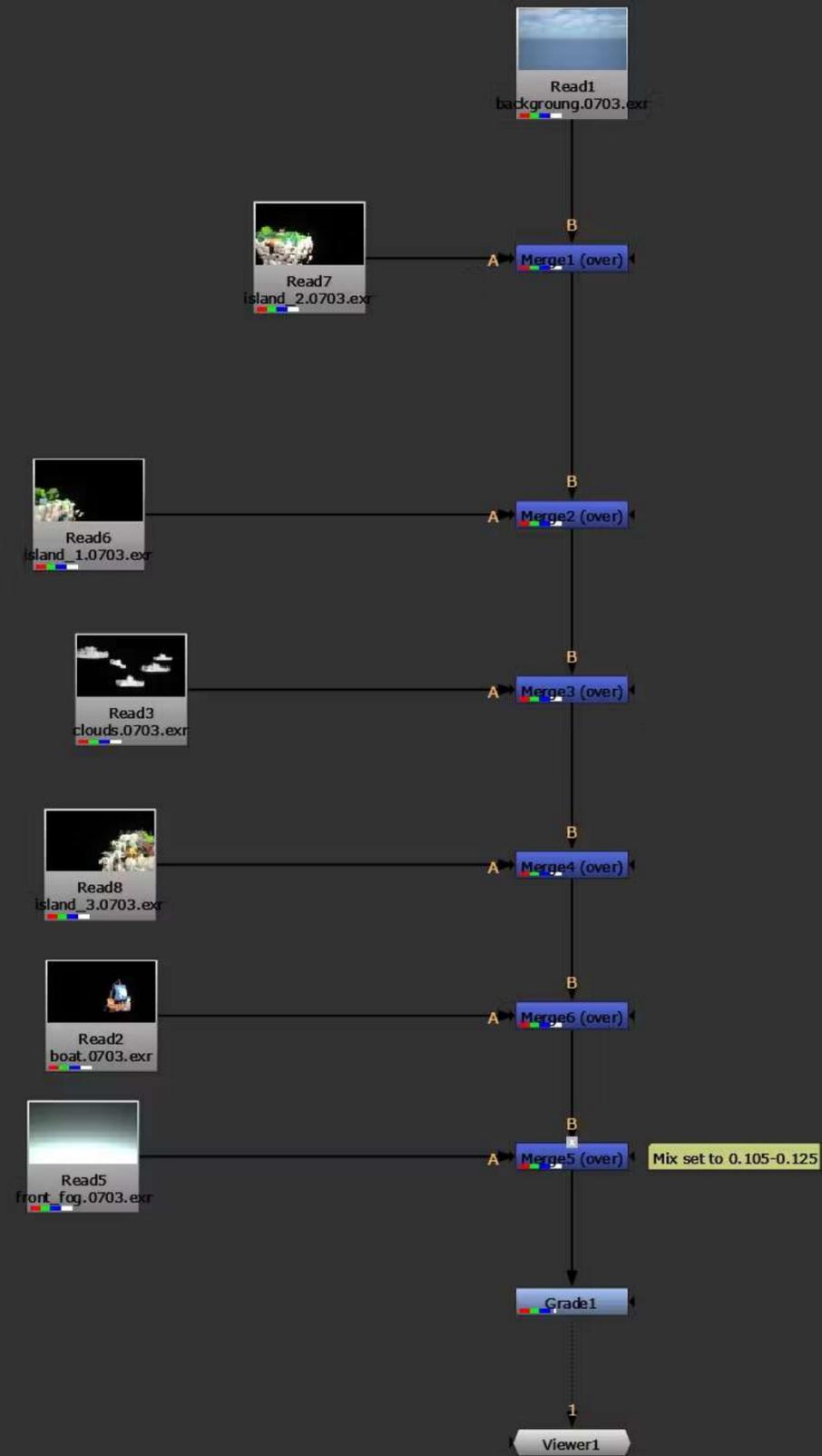


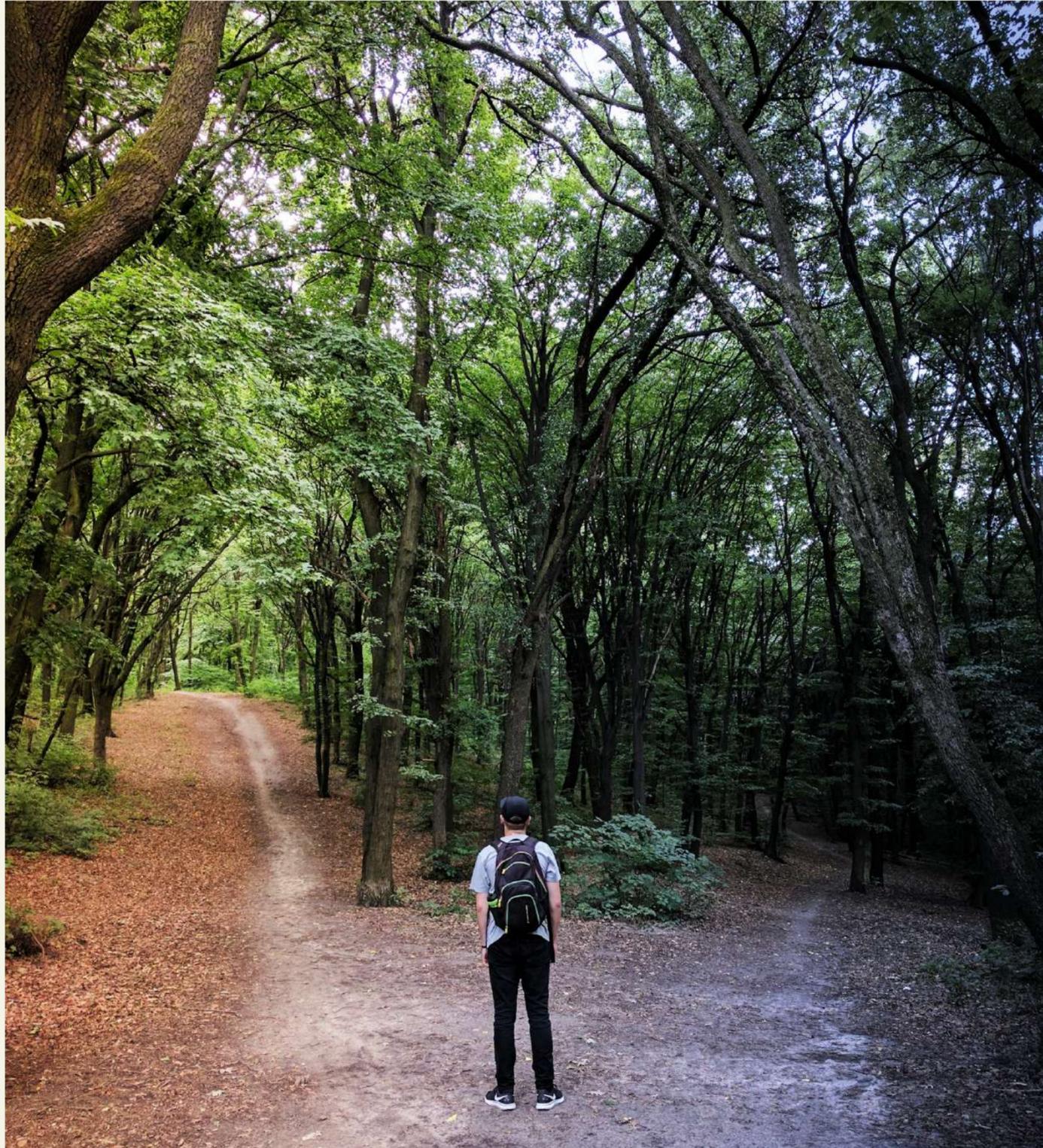
RENDER



Assets Downloaded From FAB/Internet

NUKE





OUTCOME

Through this project, I believe that I have achieved my goal of understanding Unreal Engine in such a way that it will help me in making large-scale environments, which will help me in my final project, as I want to create large-scale simulations and effects in Houdini as my final project, so in that aspect, I believe that I have achieved my goal. But while I would say I have improved my time management and presentation skills a lot throughout this project, there is still a long way for me to improve in these departments, as I started mainly focusing on this project from the beginning of the winter holidays, which was a massive improvement for me, as I generally leave things for the last moment. But even though I started early, I still wasn't managing my time properly, as I would start and abruptly stop, thinking there is a lot of time, thus resulting in me having a lot of stuff to do at the last moment. So I have improved a lot but not as much as I would have liked and so hopefully throughout the next term I keep improving.