

Level Design Showcase

Summary:

Cloud Yacht is a 3D VR environment designed for a live space themed event in VRChat in June 2025. For this project I used a variety of pre-made assets, arranging and editing them to fit a unified theme. Added functionality, lighting, and specialized shaders to completely customize the environment and turn it into a special hangout space.

Tech:

Unity 3D 2022
C# for scripting
Blender
Bakery Lightmapper



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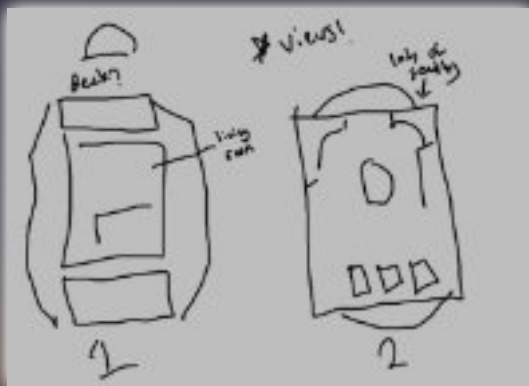
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Project Goal:

The goal of this project is to build a comfortable space for players to hang out with friends, interact with the world, and enjoy relaxing in the environment.

A big challenge of this project was selecting assets that matched the same visual style while staying within my limited personal budget.



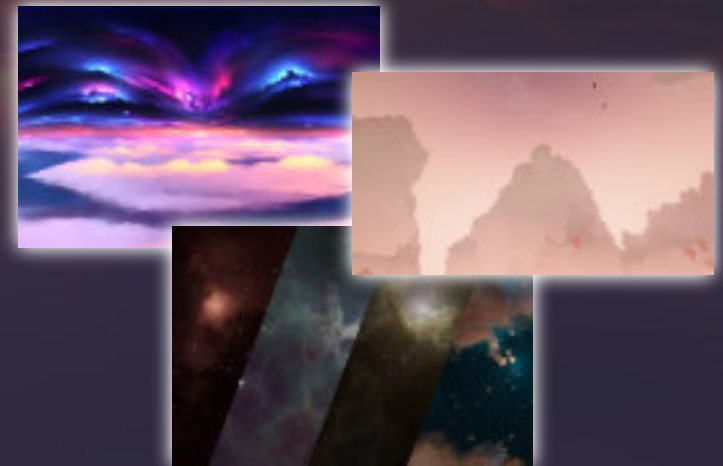
Step 1: Ideation, sketches, and research

Started the project with a clear theme for the event that I was building the event around. Centered around stars/dreamy vibes, I knew I wanted to create an environment that felt otherworldly but very comfortable. Maybe some alien creatures?

Step 2: Look development and skybox

In order to really sell the “boat on the clouds” effect I knew that I would need to carefully choose, create, then edit my skybox to create an effect that looked pretty from any angle.

I ended up trying twenty different skyboxes before settling on my final one!



Step 3: Choosing assets

In order to achieve the visual cohesion I was looking for, I had to go through hundreds of assets to carefully select what I know I could make work in my level.

I ended up choosing a lovely boat model, a selection of furniture, plants, decoration, and interactive objects that either fit my theme or I could edit the textures to better integrate them.



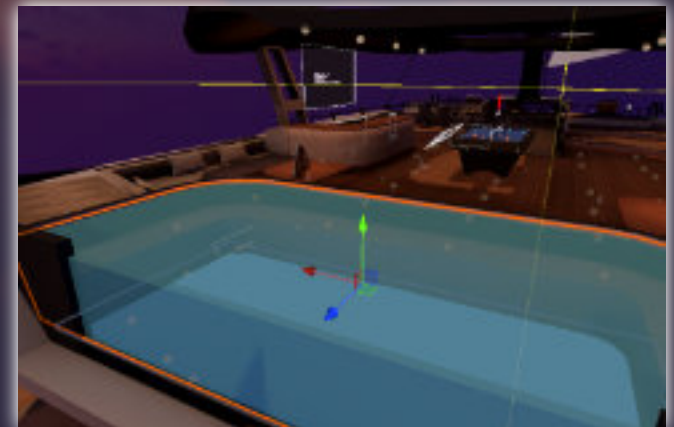
Step 4: Interactive Elements and Coding

I knew I wanted to have elements in the world that could respond to players and immerse them in the world. These included things like interactive mirrors, custom coded AI behaviors, and pickups.

Some fun pre-made assets I included is the fully working coffee bar, physics simulated pool table, interactive bar with working liquid dynamics, and world shaders that matched the music!

Step 5: Mobile Considerations

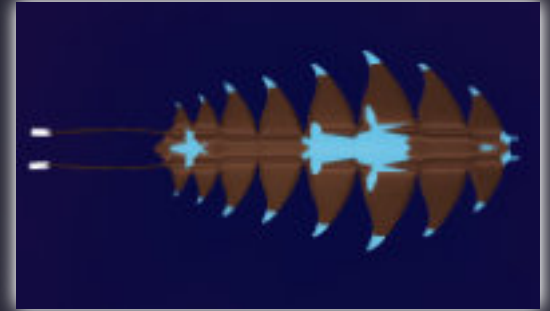
In order to fulfill the requirements of being available to any VRChat user, I needed to make adjustments to make sure the environment ran well on Mobile/Quest VR. This included altering shaders that were processing heavy and adding mobile-friendly texture fallbacks.



Step 6: Environment animals / NPCs

A big center piece of this world was going to be the network synced animals that players could enjoy watching. For these I chose some pre-rigged characters from a monster pack on the Unity store, then edited the textures to be more natural and inviting.

To really emphasize the otherworldly vibe I was going for, I added a shader to the animals that emits light in time with whatever music is playing in the world!



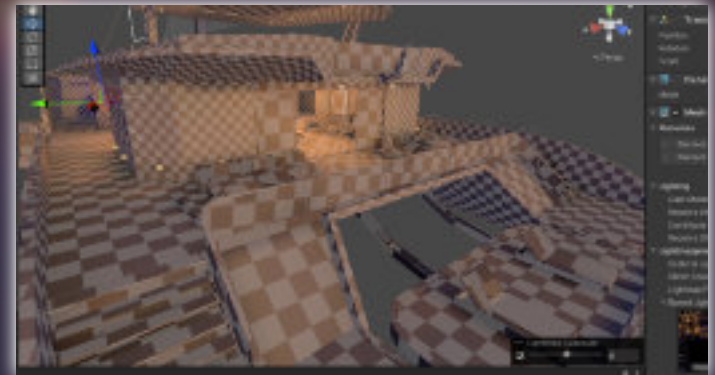
Step 7: Player Expectations

In VRChat there are a number of expectations that players have for worlds that they visit. I addressed these by including elements like usable TVs that can load Youtube URLs, adjustable sliders for post-processing effects, toggles for a variety of world settings and player comfort options.

Step 8: Baked Lighting and Post-Processing

Using Bakery Lightmapper as a 3rd party tool for more detailed lightmaps in Unity, I went through the process of tuning the world to achieve my desired warm and comfortable lighting.

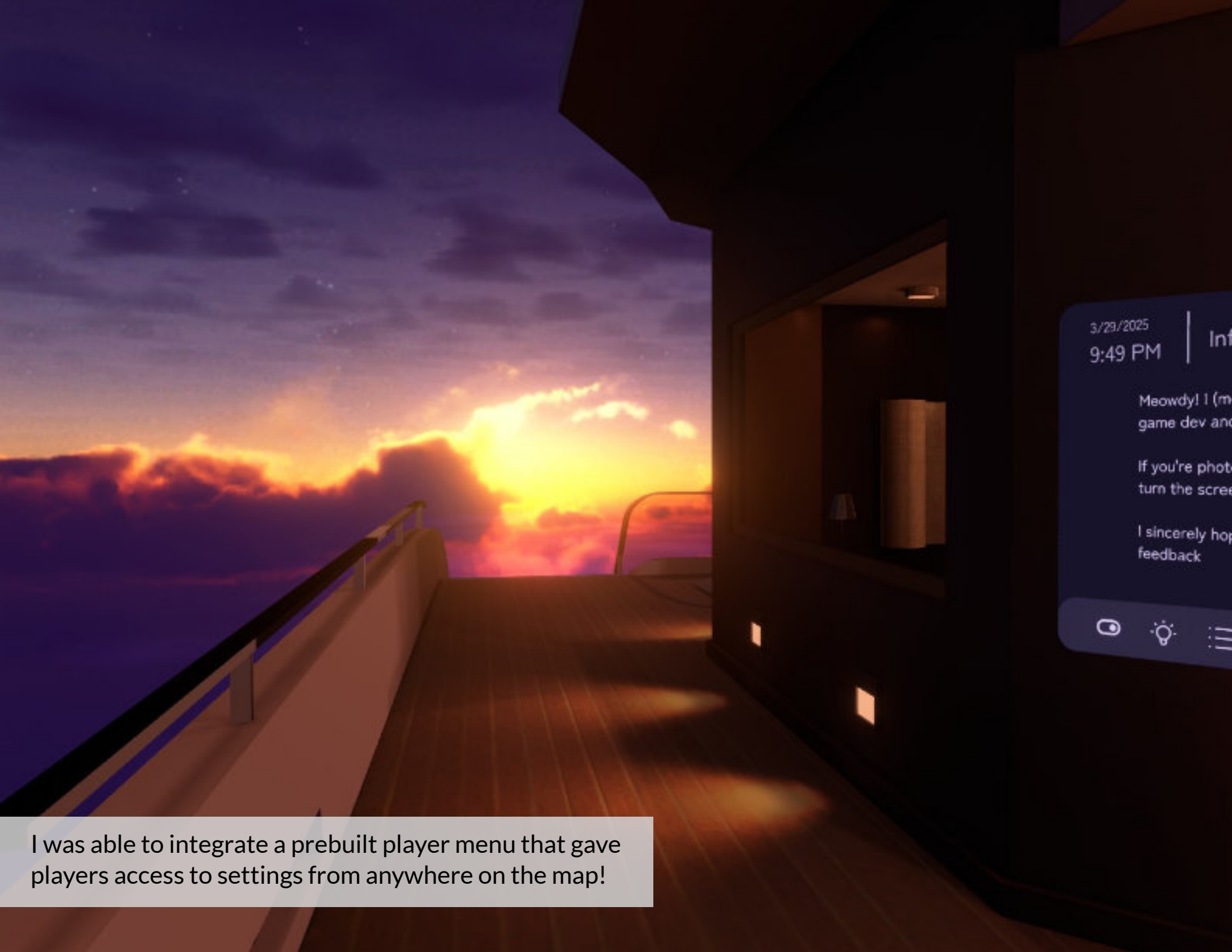
I then used some subtle post-processing to tie it all together, and made it player-customizable so that they can edit the post-processing to their own comfort!



And finally, the glamour shots!

I'll use the next few pages to really highlight how well the world turned out visually and point out a few features I'm especially proud of!





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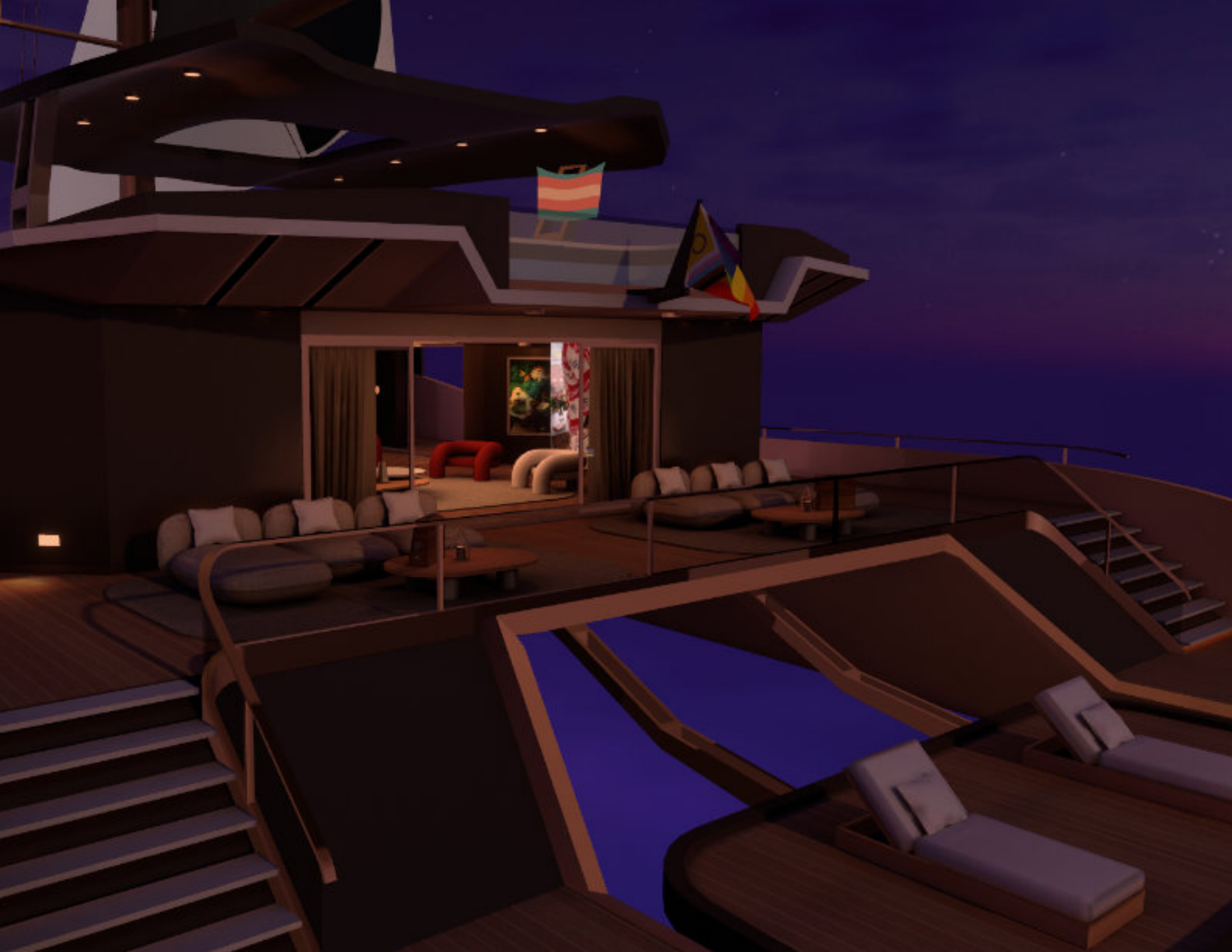


I was able to integrate a prebuilt player menu that gave players access to settings from anywhere on the map!



Added this gorgeous star shader that has some subtle movement to really enhance the dreaminess of the bedroom and living room.







Results:

By using the iterative process and utilizing playtest feedback, I was able to achieve my goal of creating an inviting player space with plenty of interactive elements!

As of writing the world has accrued 18,000 downloads and was featured on VRChat's "New and Noteworthy" tab in-game. Plus my friends just like hanging out in the world, which is the biggest win in my book!



Want me for your project?

With 4 years working in professional game design, two AAA titles, dozens of mobile prototypes, and the VR work I've showcased here I have a wide breadth of experience to bring to your team.

I am currently open to work doing any sort of game design with an emphasis on level design, systems design, economy design, and technical design roles!

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