

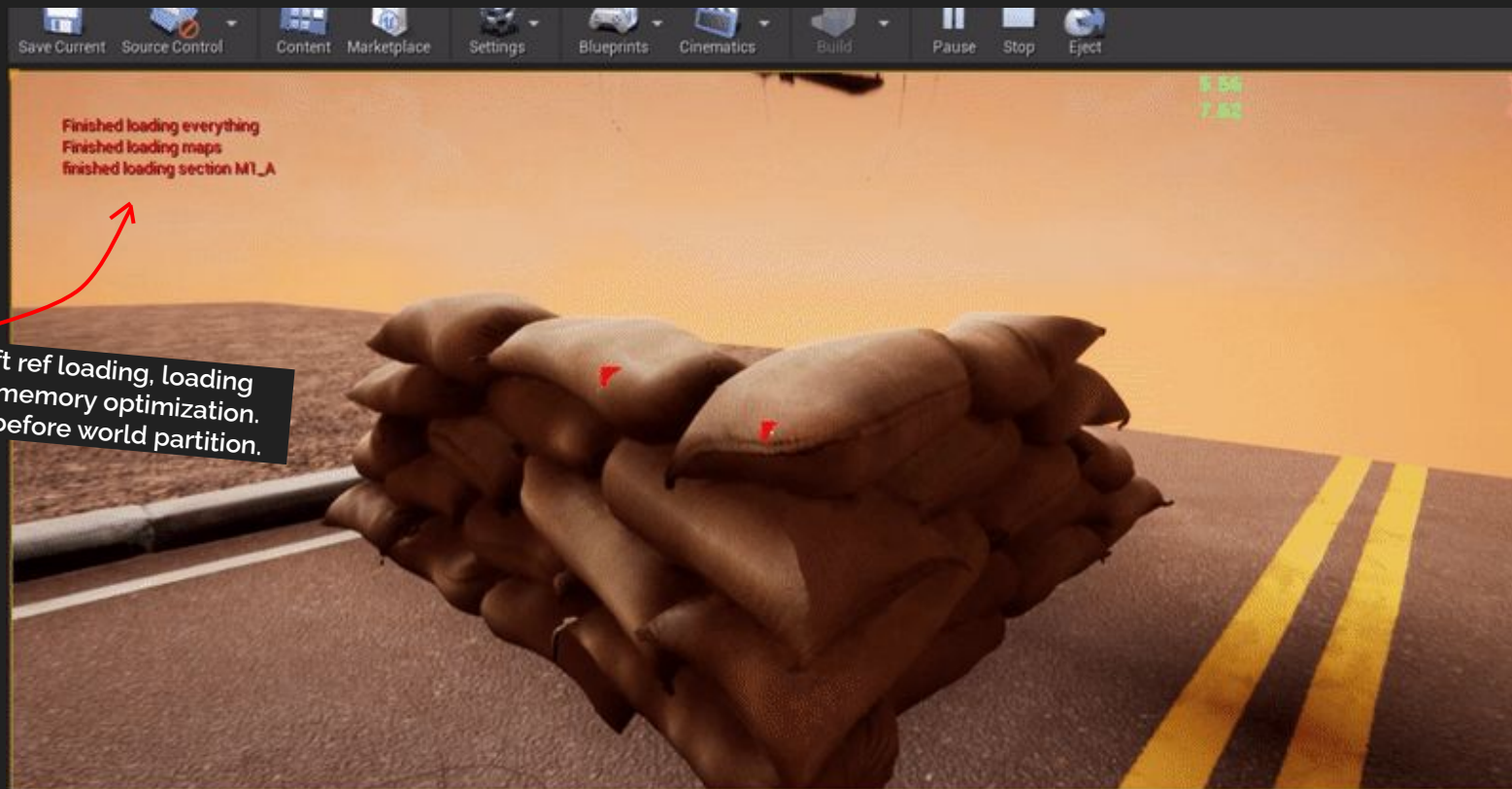
Ernesto Argüello,
UE dev work examples

Guns, inventory, interaction, damaging

Drop, equip, gun info, shooting, projectile trajectory



Physics assets, mass tuning



Finished loading everything
Finished loading maps
finished loading section M1_A

5.5%
7.82%

Also, soft ref loading, loading screens, memory optimization. This was before world partition.

Metahumans, Marvelous Designer & Alembic Caches

Personal portfolio work, WIP



Rendering, Pathtracing



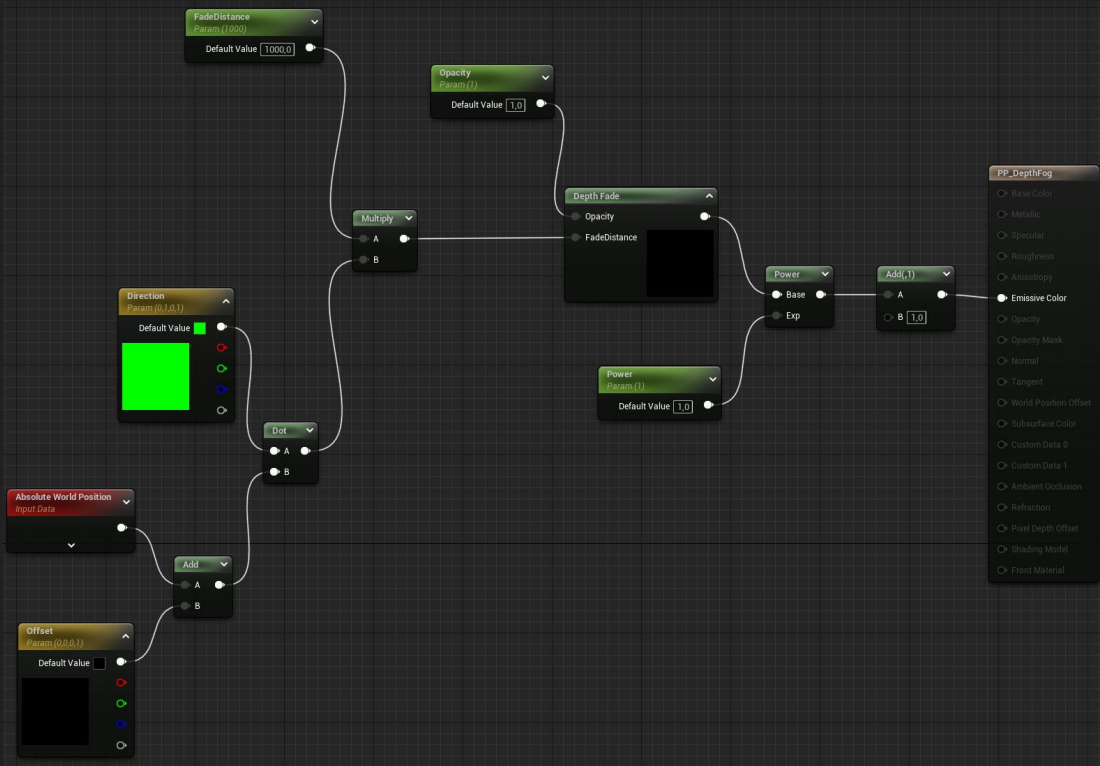
KICKASS project! Happy little renders for an xmas themed combining a roller coaster with live web conferencing!
More [here](#).





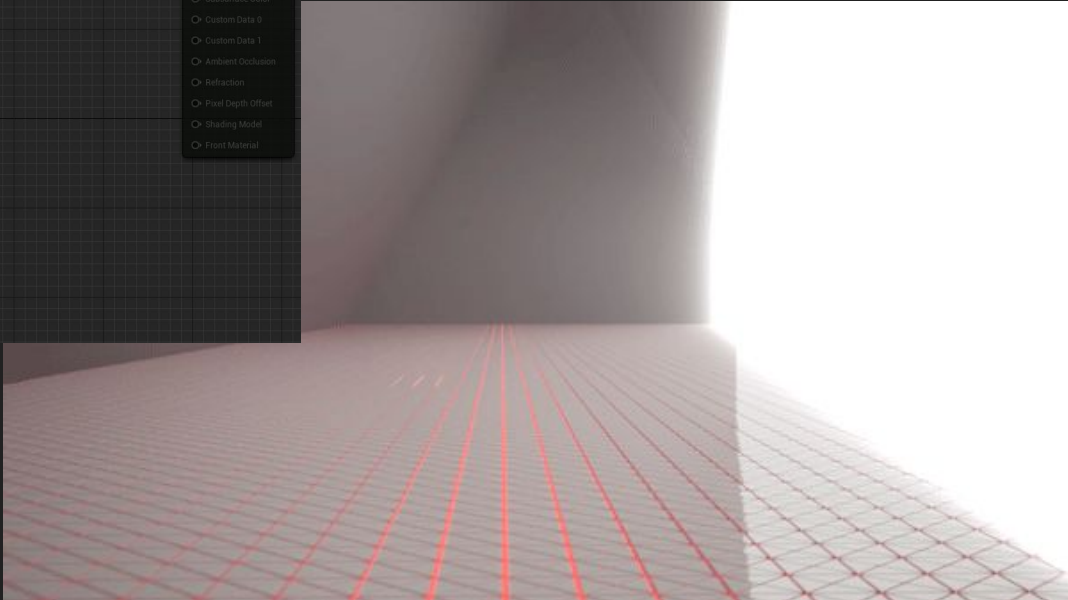
Made myself this lock screen video for my phone! All pathtraced, shapes made by me in Blender, placed randomly but seeded for deterministic renders.

Materials



Exposure on "threshold crossing" doesn't change when rasterizing or raytracing; this is a pathtracer mishap.

Placeable & art-directable fog wall post-process material



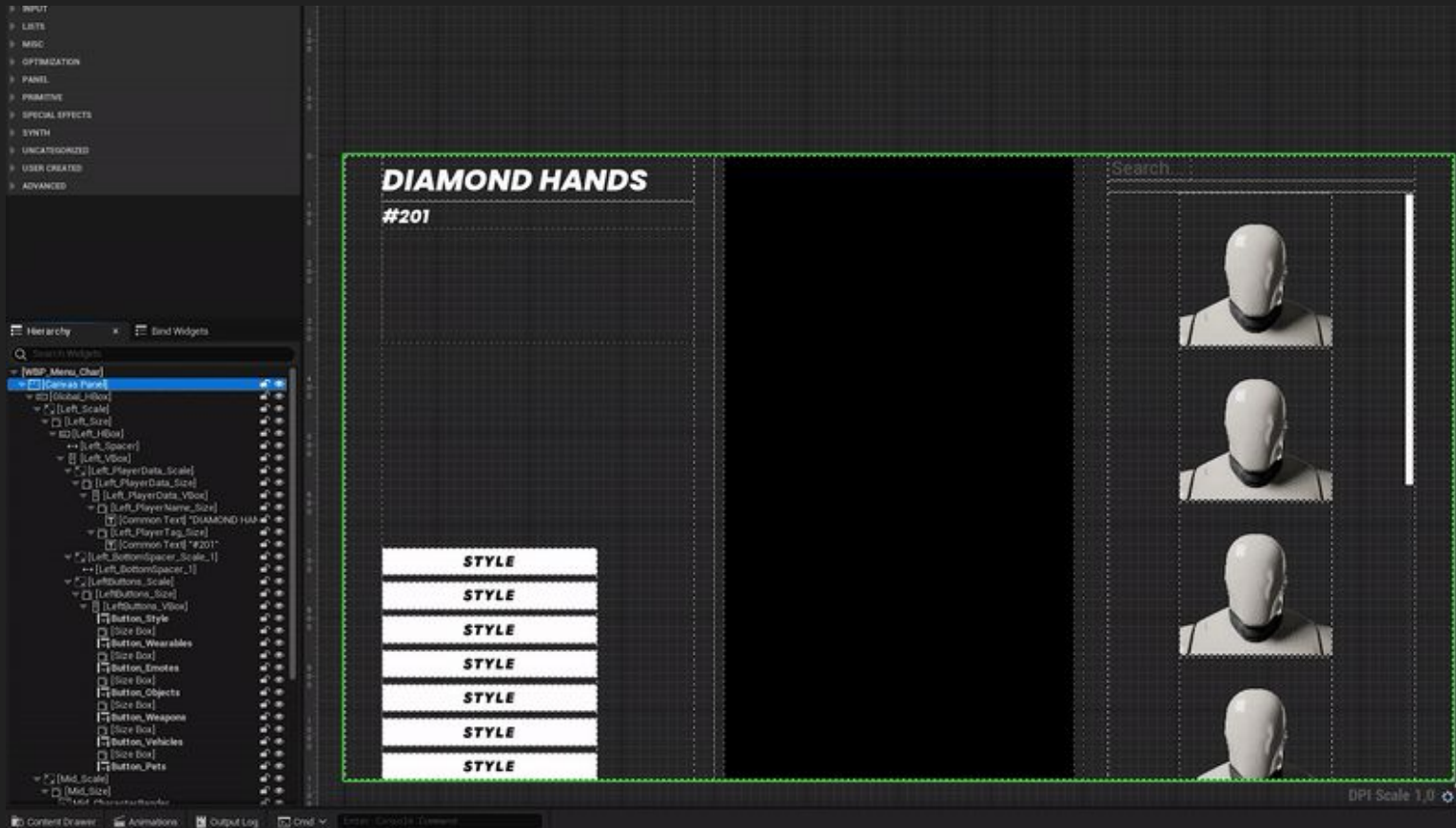
Some R&D shots



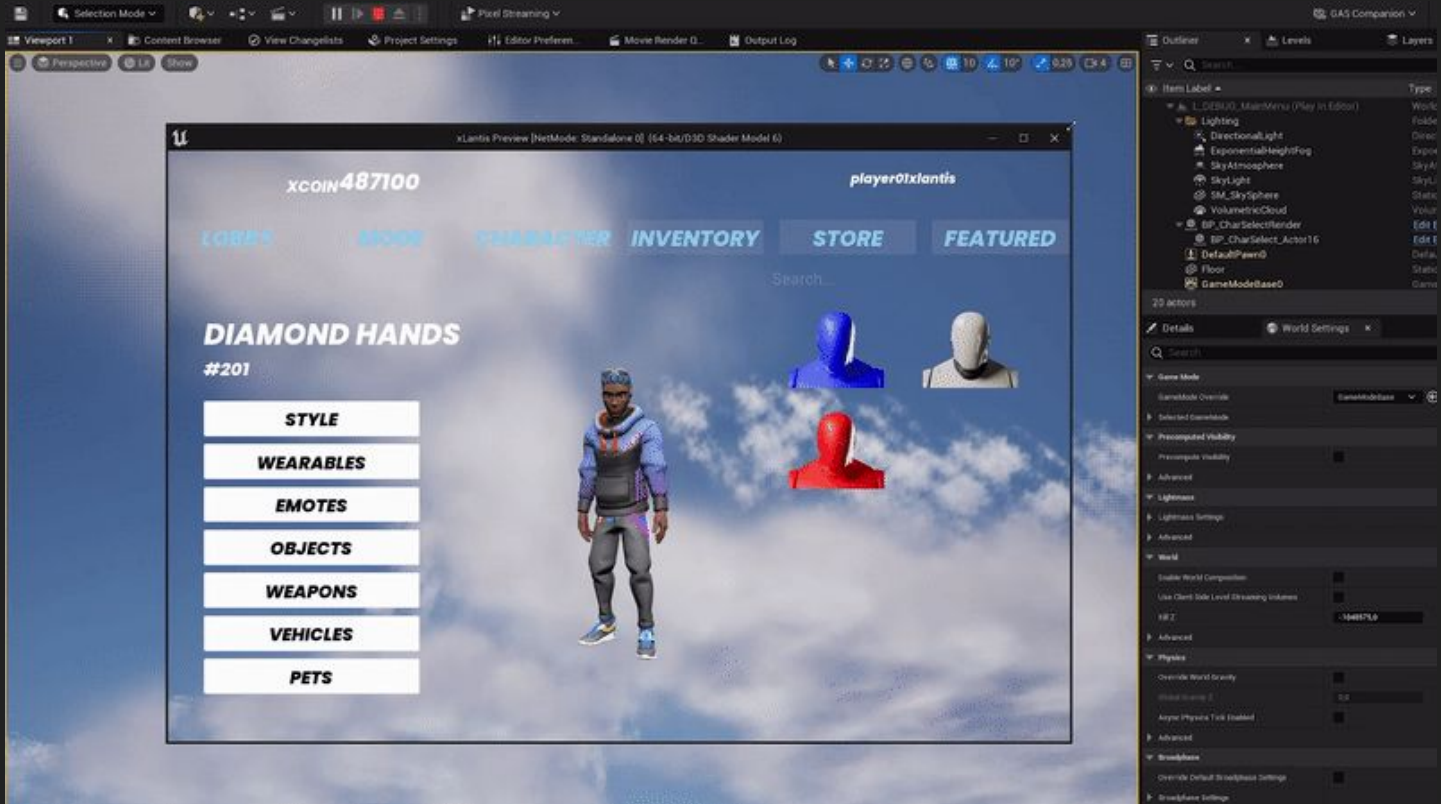
Fog wall is not in frame here,
but this shot looks cool.

UI programming

Anchoring & Sectorization



Window resizing or different devices WIP. Care & love.



XCOIN 487100

player01xlantis

LOBBY

MODE

CHARACTER

INVENTORY

STORE

FEATURED

DIAMOND HANDS

#201

STYLE

WEARABLES

EMOTES

OBJECTS

WEAPONS

VEHICLES

PETS



Outline Levels

Search

- Root Label
- Lighting
 - EnvironmentLight
 - ExponentialHeightFog
 - SkyAtmosphere
 - SkyLight
 - IESLight
 - VolumeCloud
- BP_CharSelect_Placeholder
- BP_CharSelect_Actor0
- DefaultPlayer
- Flare

20 Actors

Details World Settings

Search

- Name Mode
- Substance Override
- Substanced Component
- Default Paper Class
- HUD Class
- Player Controller Class
- Game State Class
- Player State Class
- Timeline Class
- Precompiled Mobility
 - Precompiled Mobility
- Advanced
- Lightmass
 - Lightmass Settings
- Advanced
- World
 - Enable World Compression
 - Use Client Side Level Streaming Volume
 - MS 2
- Advanced
- Physics
 - Override World Gravity
 - Use Gravity
 - Apply Physics Tick Enabled
- Advanced
- Breakdown
 - Override Default Breakdown Settings
- Breakdown Settings
- HL200Physics
 - HL200Physics Actor

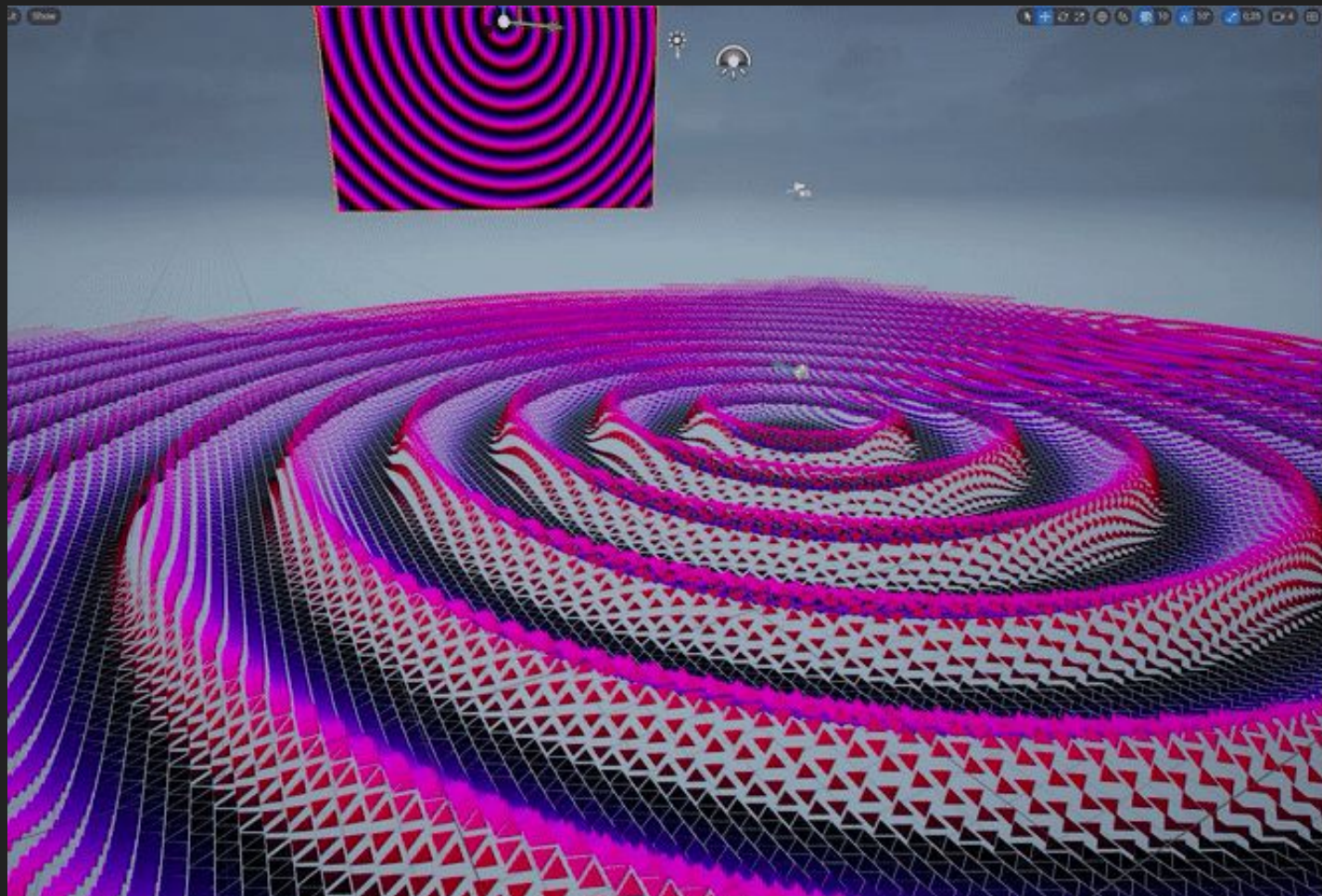
Derived Data

VFX & Niagara

Material that drives Niagara system



These are red+blue circles added together. Then those are programmatically painted on a canvas to allow for repetition.



Item Label * Type

- Gateway (obby) World
- Atmosphere Fog Atmosphere
- BP_GatewayMat** **Material**
- InstanceOfGateActor Instance
- Light Source Directional
- ML_Gateway Material
- Player Start Player
- Sky Sphere Sky Light
- SkyLight SkyLight

3 actors (1 selected)

Details * World Settings

BP_GatewayMat

BP_GatewayMat (Mat)

- DefaultInstanceFoot
- Plane

Search

General Actor LOD Material Physics

Transform

Location	2250	50
Rotation	85.999947	-0.000007
Scale	35.0	35.0

Default

Global Size **4.91E+08**

Time 1.223098

Density 15.181811

Rendering

Actor Hidden In Game

Editor Billboard Scale 1.8

Application

Mat Used on Client

Collision

Generate Overlay Events

Visible Overlay Method Use Config Default

Default Update Overlap [Link Update Material](#)

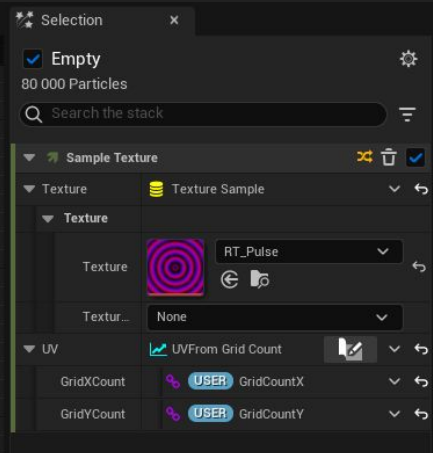
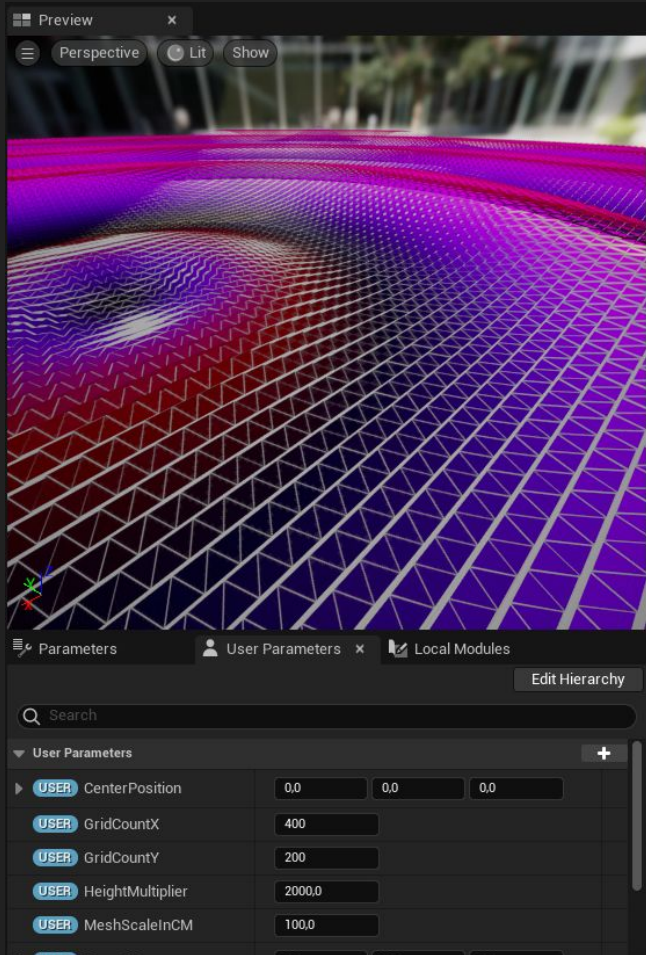
Advanced

HLR

Include Actor in HLR

Physics

Apply Physics Tick On

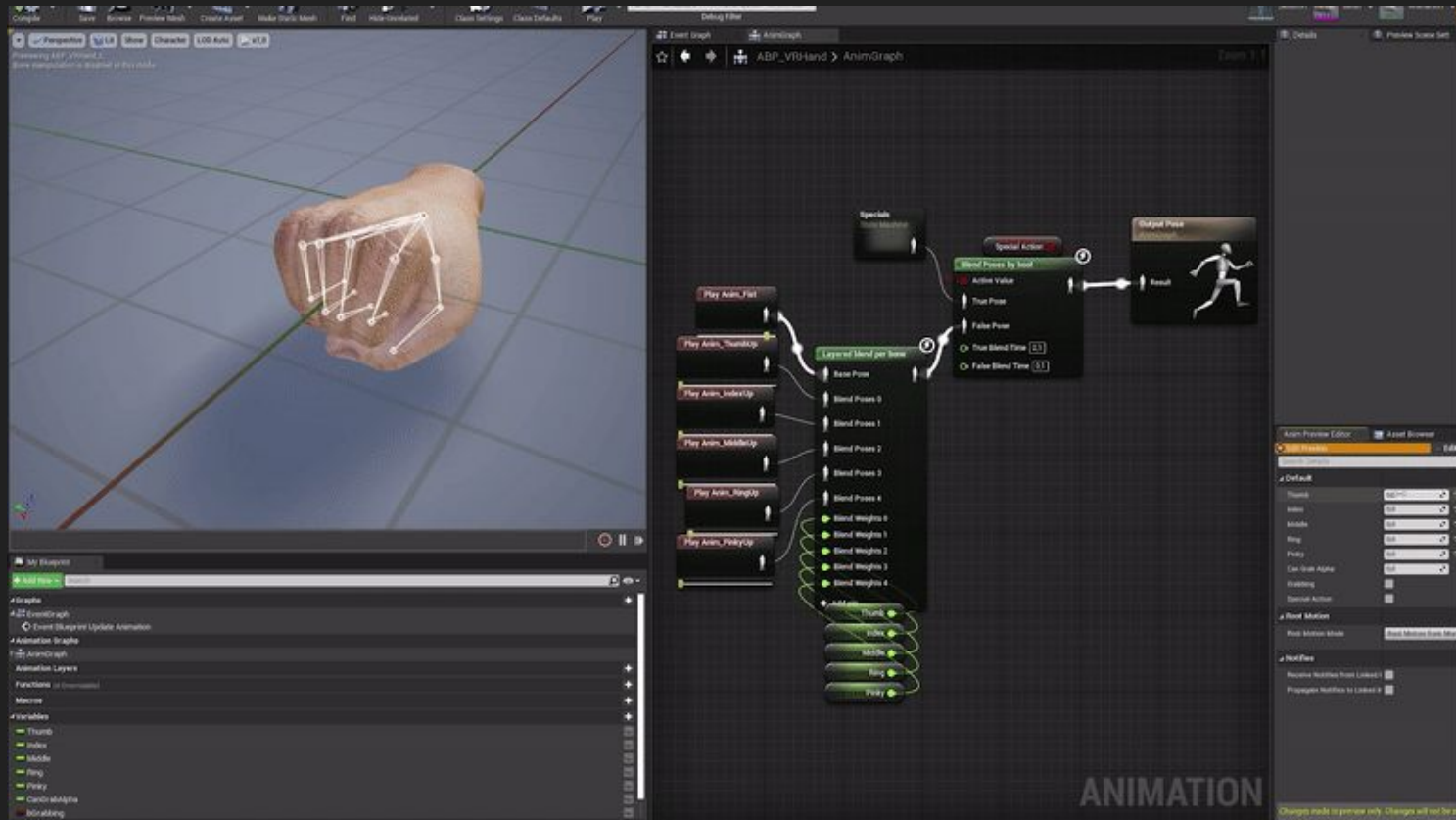


Kind of old and brute forced if you asked me. Could be rewritten using math functions at the Niagara system from the get go. Still looks cool!

SYSTEM

VR development

Animation Blueprints



Press



Please don't forget to check my [LinkedIn](#), as there are more references of my work in there, and some articles with mentions.

XLANTIS - an XMANNA Software Technologies metaverse

Leading the development team in Unreal Engine, establishing style and structure standards, and managing the Perforce server for effective collaboration. Transforming UI/UX prototypes from Figma into functional UI elements, crafting gameplay systems, and integrating API endpoints in-engine. Collaborating closely with in-house and third-party team members to ensure efficient and timely project advancement.

[View](#)

T-Mobile's Santa's Stream Along

Virtual holiday amusement park ride, combining a roller coaster with live web conferencing.

Tasks included (not limited to) setting up Perforce server for the team, supervising engine workflow, organizing project folders and style, ingestion and versioning in-engine of all assets, Niagara VFX (snow), creating main sleigh system with rigged parts (including some blendspaces and automation of anims) for Sequencer animation, optimization, and in-engine tooling for team tasks like quick renders.

[View](#)

Touch OSC + Wacom Cintiq Pro tooling for Unreal Engine

Creating custom editor tools to extend editor functionality regarding stylus pens (specifically Wacom tablets), and some Touch OSC extensions to interface with the engine. Tools aimed at speeding up director's process when setting up shots or correcting keyframes.

[View](#)

Lovebirds of the Twin Towers (Tribeca Film Festival)

Immersive VR experience for Tribeca that leads viewers through the love story of Carmen and Arturo, from their first kiss to how they survived the collapse of the buildings.

All within Unreal Engine. My tasks included (not limited to) ingestion of models and animations, creation of stereoscopic materials for VR videos, animating camera and events, and optimizing model LODs.

<https://www.prnewswire.com/news-releases/lovebirds-of-the-twin-towers-premieres-at-tribeca-film-festival-301315126.html>

[View](#)

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Recommendations

Received

Given



Aljen Hoekstra · 1st

3D Artist and Team Lead at MediaMonks

June 15, 2022, Aljen worked with Ernesto on the same team

We worked together on a very challenging project, one that seemed impossible to do. Big ask, with a supershort timeline. Ernesto was one of the most positive experiences I had during this. With his expert knowledge of Unreal we had many technical conversations on how to solve our challenges and prevent possible issues. We managed to pull it off and even over-deliver, with Ertie being a main contributor to this!



Mariano Larronde · 1st

Founder at Voyager Interactive | Virtual Production, Games, AR/VR & Immersive experiences

January 6, 2022, Mariano managed Ernesto directly

I had the pleasure to work with Ernesto at Mediamonks. He loves to learn new technologies and share his knowledge with the rest of the team. He's always looking for the best solution. He's fast and effective resolving complex challenges, but never neglects quality. Most important: he's a great human being. I really had fun working with Ernesto and would strongly recommend him to anyone who needs to innovate. He won't disappoint you.



Tadeas Toth · 1st

Software Engineer at Telegrafía a.s.

February 16, 2021, Tadeas was Ernesto's client

Brilliant is what comes to mind when I think about Ernesto. I had the pleasure of working with Ernesto on a game project that focuses on cognitive learning. I was mostly impressed by his work ethic. Ernesto is a very productive person and is a multi-skilled person with vast knowledge. Ernesto is a careful, proactive, self-motivated, and intelligent team player. It's a pleasure working with Ernesto. I highly recommend Ernesto if you need to get the job done!

Kind regards,
Ernesto (Ertie) Argüello.