TECHART PORTFOLIO

Diyang Zhang

PROJECTS

TurboForge

An Immersive Car Crafting Simulator in AR/VR

With Xinyue Liang and Hongxiao Zheng

Made with Unity3D URP × Meta XR SDK × XR Interaction Toolkit

Main Contributions:

- Unity XRI × Meta XR Building Blocks basic setup

- Models migration: material & textures optimizations

- Select-and-Hold interaction system with animations

- Physical objects layering

- Audio system

- Video Trailer and teaser editing

Octosquishy

A Unity3D Side-Scrolling Third-Person Game Project

Independent Project

Made with Unity3D URP

Main Contributions:

- Third-person movement control
- Bullet system
- HP system
- Conditional MP increase
- Special Attack
- Animations

Walk Your Cat!

A Mixed Reality Experience with Laser Pointer and a Cute Cat

With Nate Gordon (Designer)

Made with Unity3D URP × Meta XR SDK × XR Interaction Toolkit
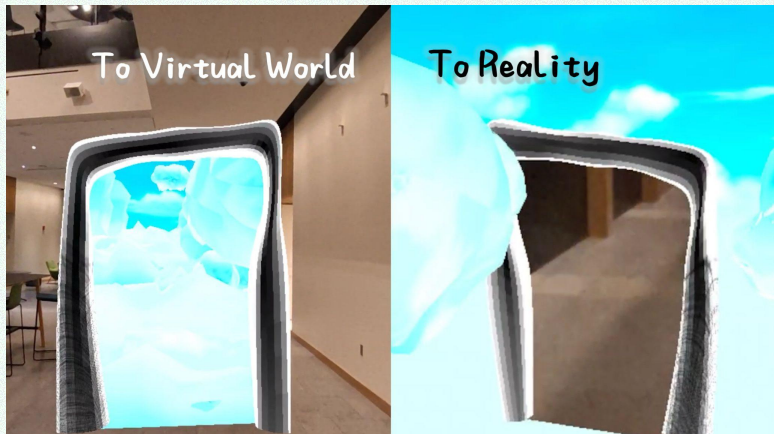
Main Contributions:

- Ray Interactions

- Cat's *infinite-chasing* mechanic

- Cat's *jump-to-portal* automatically detectable event

- Portal triggering

- Scene transfer by player's *entering* event

- Animations migration to Unity

LIGHTWEIGHT PROJECTS

To Virtual World

To Reality

Heaven's Gate

- Stencil Buffer
  - objects layering
  - Double-sided passthrough
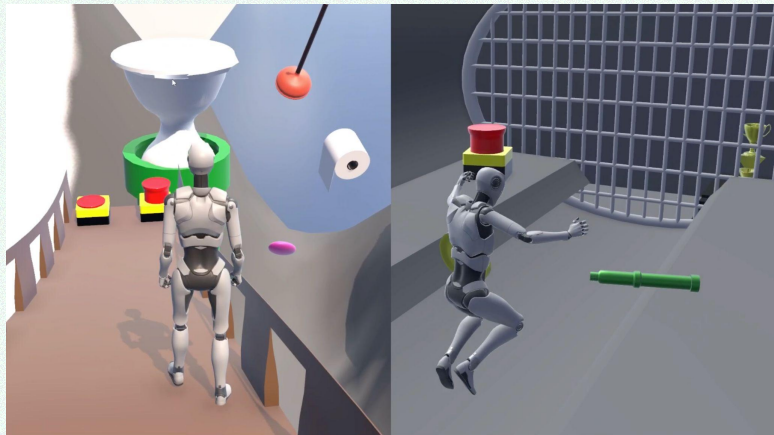 - Additional treatment for hidden Skybox

Coral GenEngine

- Generative Engine which enables:
  - Add and remove
  - Random textures
  - Random scales
  - Random rotations

The Toilet

- Unity Basics
  - Interactive button
  - On-Trigger animations
  - Collection system
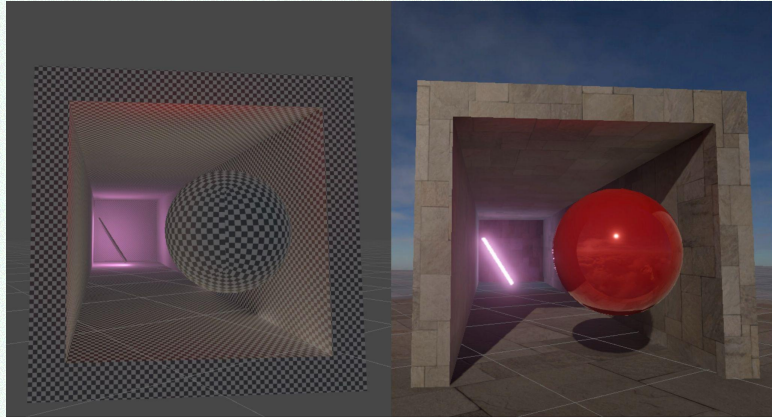 - Attaching system

MORE SELECTED WORK SAMPLES

Particle VFX

- Customization

Light Baking

- Emission and Reflection

THANKS!

For more information,
please refer to my personal webpage:
https://serev99.github.io/TechArt/