

Hsiang-Hsuan Tung

GAMEPLAY/UI PROGRAMMER



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Team Projects

Gameplay/UI/Networking Programmer: *WExplosion*

3D Multiplayer Competitive Game | Team of 2 | Unreal Engine 4.25 (C++)

- Designed and implemented a hierarchical structure to manage game objects across different game modes.
- Implemented UI with functionalities that handle information between server and clients.
- Serialized and deserialized the user graphic and audio settings.
- Developed the map saving and loading tool in Unreal Engine editor.

Gameplay/UI Programmer: *RoboGames*

3D Multiplayer Party Game | Team of 5 | Unreal Engine 4.24 (C++)

- Designed a lobby system for player customization, level selection and game setup.
- Engineered the user interface with replication to provide the real-time information.
- Created a scoreboard system to track player's points across levels.
- Developed a round system to manage the winning condition.

Gameplay/UI Programmer: *Just Desserts*

3D Sweet-Based Adventure Game | Team of 9 | Unreal Engine 4.22.3

- Architected modular interactive object system with custom event triggers and receivers.
- Took advantage of Unreal's blueprint interface to communicate between interactive objects.
- Utilized Unreal's game instance to track data across levels which collaborated with the interactive system.
- Engineered custom saving and loading system taking advantage of built-in SaveGame class.

Gameplay/Physics Programmer: *Abyssal*

2D Underwater Side-scrolling Game | Team of 11 | Custom C++ Engine

- Built custom physics system featuring kinematics and AABB collision algorithm.
- Engineered collision channel functionality for layered collisions.
- Developed modular particle system with custom emitters and generators.

Personal Projects

Game Developer: *Nostalgia*

3D Japanese First-person Horror Game | Unreal Engine 4.22.3 (C++)

- Engineered dialogue system with custom data asset to streamline content editing.
- Made use of Unreal's game instance to hold player's progression to call corresponding events.
- Created a save/load system which supported chapters locked/unlocked functionality.
- Reduced the loading time by decreasing loading objects number with level streaming.

Game Developer: *Deep Blue*

3D Underwater First-person Dive Game | Unreal Engine 4.22.3

- Utilized built-in spline system to develop a guided swarm system for fish schooling logic.
- Fine tuned buoyancy parameter to create a realistic swimming player controller.

Education

Bachelor in Computer Science and Game Design

DigiPen Institute of Technology - Redmond, Washington

Bachelor of Science in Accounting

National Chengchi University - Taiwan

Jan. 2021 - Apr. 2021

Sept. 2020 - Dec. 2020

Sept. 2019 - Apr. 2020

Sept. 2018 - Apr. 2019

Jan. 2020 - Dec. 2020

Sept. 2019 - Dec. 2019

Sep. 2017 - Apr. 2021

Aug. 2009 - Jul. 2013

Skills

Technical Skills

Rigid Body Physics
UI Programming
Particle Effects
Gameplay Programming
Game Engine Architecture
Game Networking

Languages

C / C++ 4 years
C# 1 year

Engines

Unreal Engine 4.22
Unreal Engine 4.24
Unity

Source Control

Git
Perforce
SVN

Tools

Visual Studio
Doxygen
Dr. Memory
Valgrind