# Hà Trọng Tấn

Intern Unity Developer

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https://github.com/tanhtt

# **OBJECTIVE**

# **PROJECTS**

# **Adventure Prototype**

Sep 2024 - Now

Git:

https://github.com/tanhtt/Little Adventure

Video demo:

https://www.youtube.com/wat ch?v=C08cGq\_fPPw

# **UNITY 3D**

Personal Project

## A 3D top-down shooter prototype game

Keys features:

- Weapons System: Implemented a dynamic system that allows players to carry, swap, and manage multiple types of guns seamlessly.
- Enemy AI: Designed multiple enemy types, including melee and ranged (weapon-throwing) enemies. Leveraged Unity's NavMesh system for pathfinding and State Machines to control enemy behaviors autonomously.
- 3D Animation & Animator Management: Gained significant experience in working with 3D animations, managing complex animation states using Unity's Animator system, and optimizing animations for humanoid character models.
- **Technologies Used**: Unity NavMesh, State Machine pattern for AI, Humanoid models, and advanced animation techniques in Unity.

#### **Space Ship**

Feb 2024 - Apr 2024

Git:

https://github.com/tanhtt/Spac eShip

Video demo:

https://youtu.be/XvUxGw8XG4 c

## **UNITY 2D**

Personal Project

A 2D spaceship shooter game where the player controls a spaceship and shoots obstacles, such as enemies and asteroids.

Key features:

- Obstacle Management: Implemented enemies and asteroids as obstacles, utilizing
  Singleton pattern and Object Pooling for efficient resource management and performance optimization.
- 2D Game Development: Gained experience with 2D animations, asset creation, and the use of Unity's 2D features.
- Basic UI System: Designed and integrated a basic UI for health, score, and game controls.
- **Technologies Used**: Unity 2D animation, Object Pooling, Singleton pattern, Basic UI system in Unity.

#### **Builder Defense**

May 2024 - Aug 2024

Git:

https://github.com/tanhtt/build er\_defense

Video demo:

https://youtu.be/3LADFUxcgol

# **UNITY 2D**

Personal Project

A 2D builder defense game where players protect a main base by constructing various buildings to defend against enemies or gather resources like wood, stone, and gold.

Key features:

- Building and Defense System: Designed a system for constructing defensive buildings and resource-gathering structures. Buildings can be upgraded to improve defenses for subsequent enemy waves.
- Resource Management: Implemented resource gathering and management mechanics tied to buildings placed near specific resource points.

- Data Management with ScriptableObject: Utilized Unity's ScriptableObject for creating and storing data for buildings, resources, and other game entities efficiently.
- Shader and Post-Processing: Explored Unity's shader capabilities and post-processing effects to enhance game visuals and improve the overall polish.
- Technologies Used: ScriptableObject, Unity shaders, Post-processing effects, 2D game mechanics.

# Kitchen Battle

Aug 2024 - Now

Git:

https://github.com/tanhtt/Kitc henBattleMultiplayer

#### **UNITY 3D**

Personal Project

Inspired by Code Monkey's tutorial, a 3D cooking battle game where player cooks and follow recipe's requirement to done dish.

Key features:

- Ingredient and Recipe Management: Applied ScriptableObject and prefabs to effectively manage ingredients, recipes, and menus, ensuring smooth gameplay and data organization.
- Singleplayer Mode: Completed the single-player gameplay, where players navigate kitchen tasks and challenges.
- Multiplayer Development (In Progress): Currently developing multiplayer functionality using Unity's Netcode, learning concepts such as Server RPC, Client RPC, and Server-Client-Host communication.
- **Technologies Used**: ScriptableObject,Observer Pattern, Prefabs, Unity Netcode (multiplayer), Server/Client RPC.

# **EDUCATION**

2021 - 2025

Software Engineering

FPT University (Danang)

# SKILLS

## **Technical Skills:**

- Programming: Unity 2D and 3D, C#, OOP
- Design Pattern: Singleton, Object Pooling, Observer Pattern, State Machine, ...
- Physics and Mathematics: collision detection, movement mechanics
- Asset management: graphics principles, including rendering, animation,...
- Git for version control to manage project

#### **Soft Skills**

Problem-Solving, Teamwork, Time Management

#### Language:

English, Vietnamese, German (Learning)

#### **ACTIVITIES**

### INTERESTS

#### CERTIFICATIONS

Feb 2024 - Jun 2024

**SAI GAME** 

**Unity Developer** 

Do mini-game and apply unity

localization (multiple languages) in game

Soccer

Game

Film

May 2024

Unity Learn Course