探討VR遊戲設計

以 HTC VIVE 操作環境為例

指導教授
李同益老師

簡報日期
2020/06/08

第47組

👤 團隊成員
陳明心
黃資傑
鄭以昀

👤 指導教授
李同益老師

目錄

CONTENTS

01

專題簡介
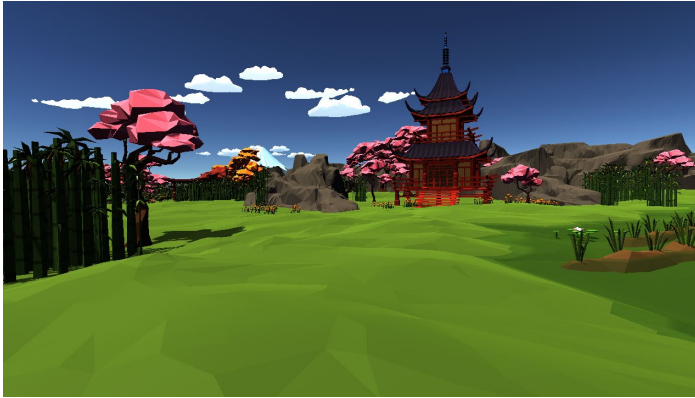## Summary of Project

整體架構圖

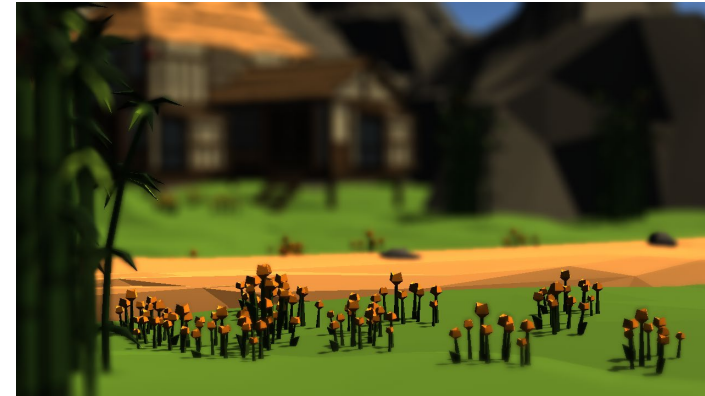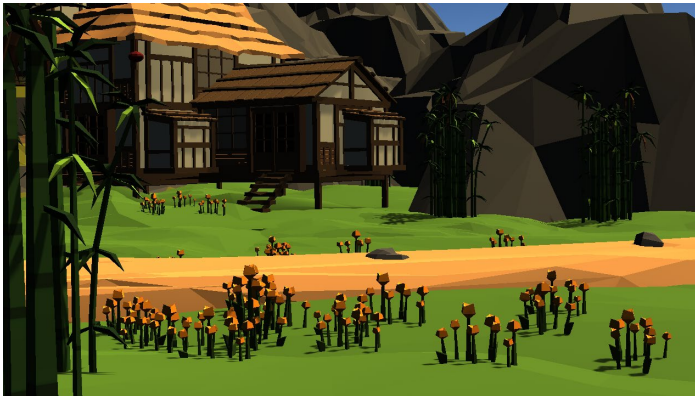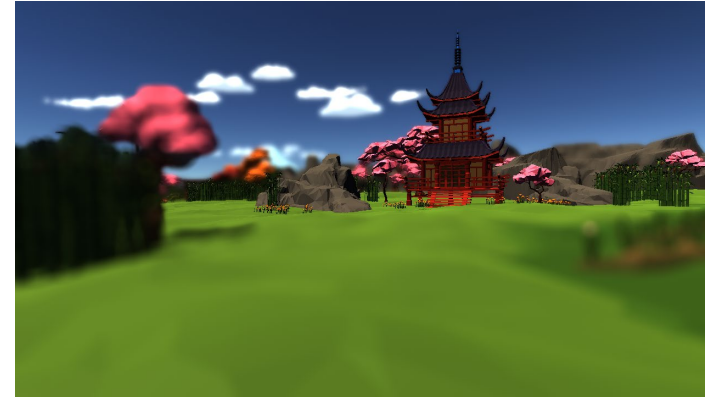## System Architecture
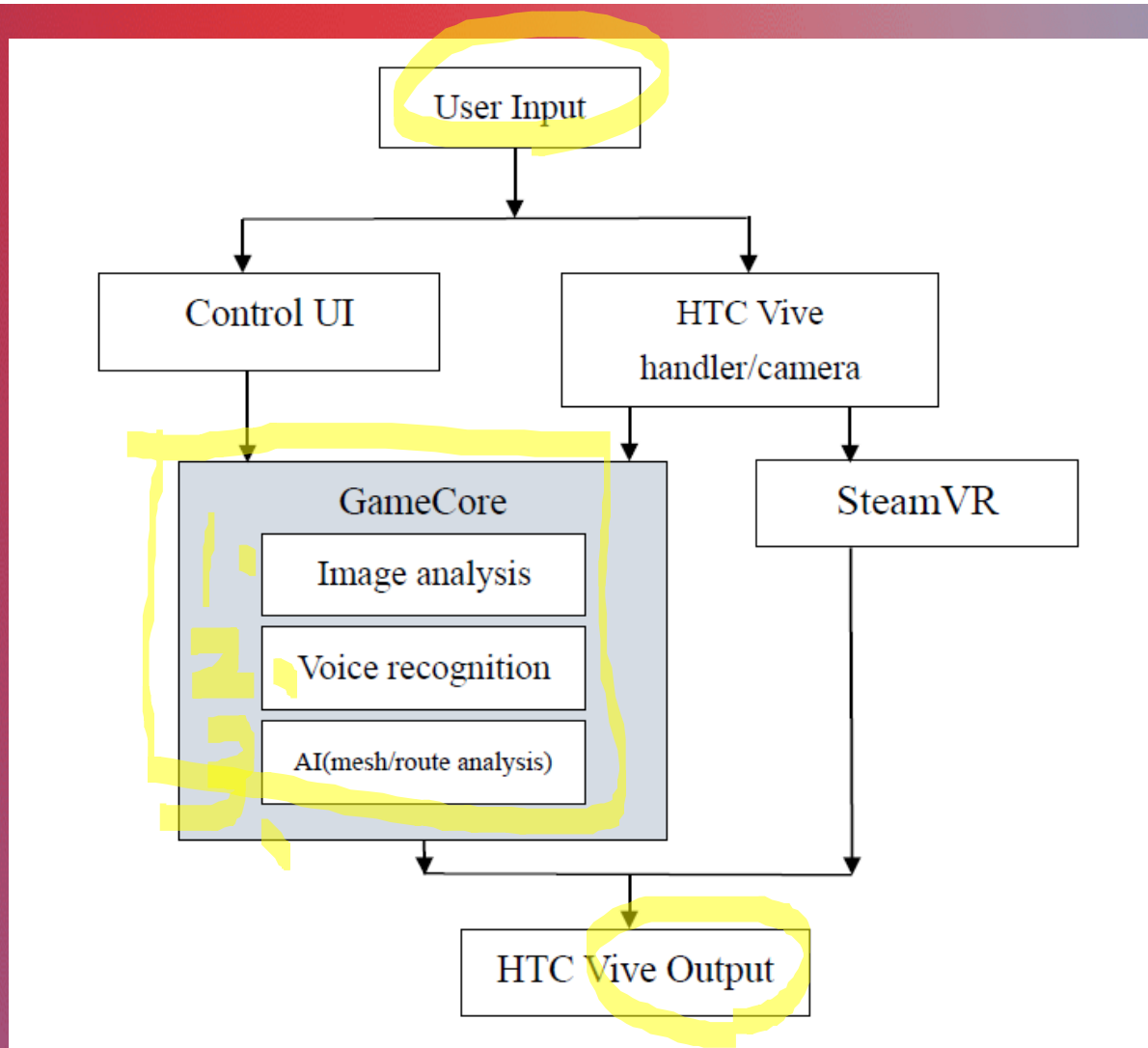
02 技術分析
Performance analysis

Depth of field Caculation

real-world camera can only focus sharply on an object at a specific distance, objects nearer or farther from the *camera* will appear blur.
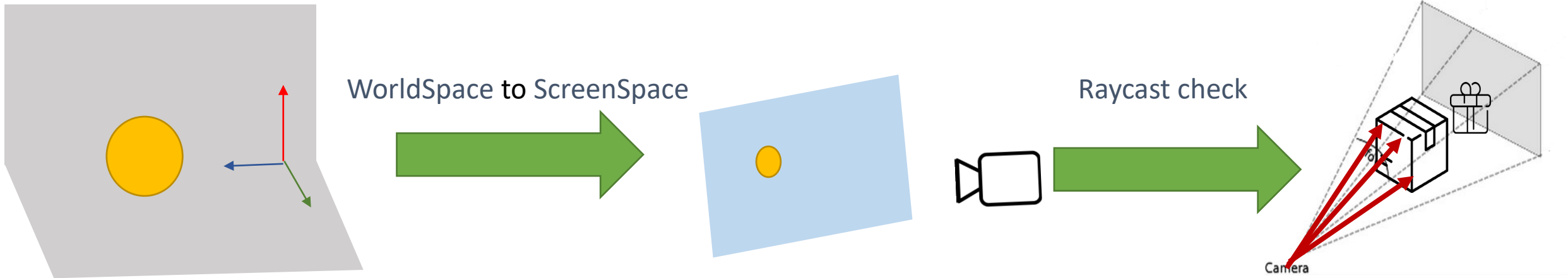

Post Processing Stack

3D objects & camera Fov analysing

Judge whether the object is in range of the camera fov.

WorldSpace to ScreenSpace

Raycast check

Camera

Random Maze Generator

- Hunt-and-Kill algorithm
    - In "hunt" mode, where you scan the grid looking for an unvisited cell that is adjacent to a visited cell.
    - If found, carve a passage between the two and let the formerly unvisited cell be the new starting location
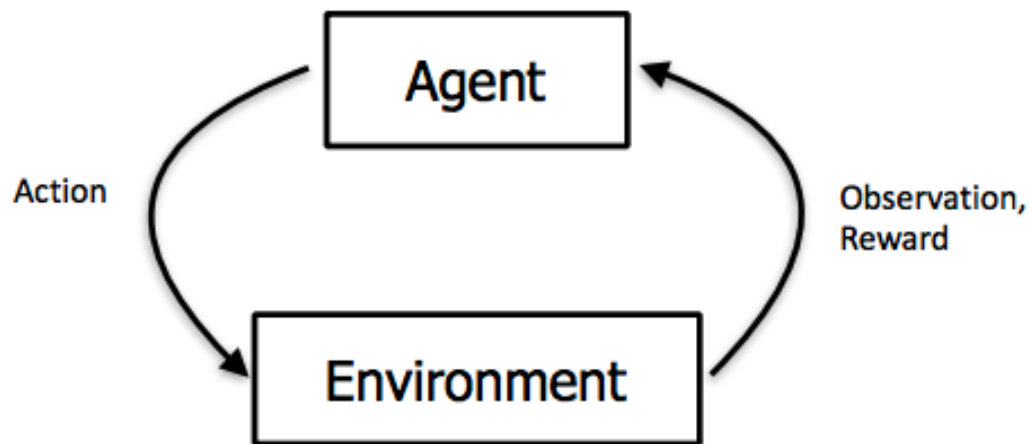
https://www.jamisbuck.org/mazes/
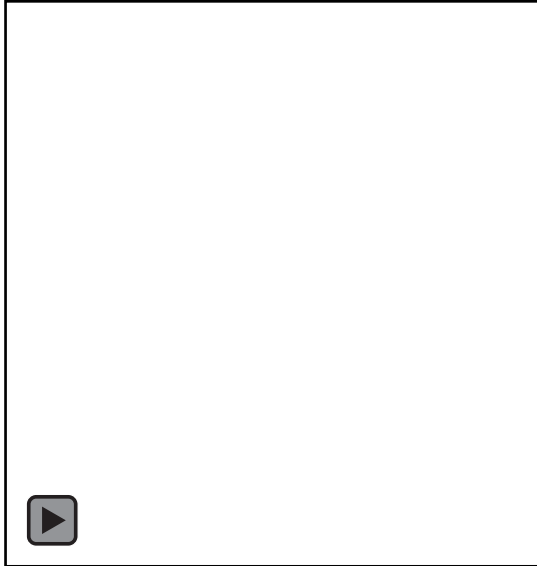
AI Navigation

- Set AI as NavMesh agent

- Bake NavMesh dynamically while maze is creating in runtime

- Set destination of the maze

- Walk through the maze using unity.AI

AI Hide from Agent

- Observe the environment such as hiding cover, position of the player and the distance between the nearest cover etc.

- Evaluate the action of the agent to hide from player's sight.

03 成果展示
Demonstration