CRIMSON | Global Academy

GAME_DEV

An extra-curricular club with CGA

Create 3D computer games

Learn the Unity Game Engine:

- the world's most popular platform to build computer games
- across the world, 2 billion copies of Unity games are downloaded each month

Learn to code using the C# language:

- one of the most powerful and useful coding languages to learn for future careers
- it's also easy to learn – within an hour you will have code running to control simple computer games

A trailer for the Unity Game Engine
https://www.youtube.com/watch?v=AJ6Mkx1KEns





Look at this showcase to see some great games made in Unity:

https://unity.com/madewith



Information on how the C# coding language is used in Unity games:

https://unity3d.com/learning-c-sharp-in-unity-for-beginners

No previous knowledge of Unity, computer game design, or C# needed to join the club:

- All are welcome to join us
- You'll need to install personal copies the Unity Game Engine software and Visual Studio (for C# coding) on your computer
- Both are free to install, and instructions to install will be given
- The club will support your studies and knowledge of maths –we will use vectors, transformations, trigonometry, algebra, and other topics to write our computer games

Structure of the training:

Part 1: Introduction to Computer Game Development

Week	Topics
0	Setting up: installation of Unity and Visual Studio
1	The Game Engine interface: objects, cameras, lighting Introduction to C# coding
2	Object control: creating, controlling and destroying game objects. Controlling a game camera
3	Physics: rigid body objects, collisions between objects. Variables and the user interface (UI)
4	Coding: conditions, loops, components. Introduction to audio. The Unity Asset Store
5	Functions and methods in C#. Using web resources to research C# and Unity.
6	Creating a UI: text, buttons, panels, user input. Displaying game variables

7 - 8	Supervised student project: create your own Unity game

Part 2: Advanced Unity and C# Game Development

Week	Topics
1	Meshes: creating and manipulating meshes for game terrains
2	Algorithms in C#
3	Building and publishing Unity games
4	Creativity: game genres and design
5 - 8	Supervised student project: create your own advanced Unity game

Faculty Advisor: Dr. Andrew Daniel