

# Chun Kei Damian Tsui

Games Programming Specialist

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## Profile

I am a BA(Hons) Games Development student in Falmouth, specializing in gameplay programming, with experience in multiple game engines. Over the course of my education, I have learned and used several programming languages, being able to adapt to each quickly. I have worked in multiple disciplinary teams for many of my course assignments, creating several game projects. As a programmer, I also enjoy the process of producing creative game mechanics systems, and working closely with or without designers to improve gameplay, while also being proficient in user interface implementation.

## Skills

### Technical

- Unreal Engine
- C++
- Blueprints
- Unity Engine
- C#
- Python
- Java

### Industry

- Version Control (Git)
- Team Communications
- Agile Workflow
- Bilingual (Chinese/English)

## Education

2020 – Present BA(Hons) Games Development: Programming

Falmouth University, England

A major feature of this course is the teamworking aspects, allowing me to work with students across multiple disciplines. The promotion of utilizing version control and agile workflow also aided me in producing and sharing work with my team.

### Projects

**Ant Game** C# scripting was used for this project. A climbing system was made to simulate an ant's action. Tangents to walls are calculated using raycast, and are used to calculate the orientation of the character and the direction of travel. A projectile system was also implemented, including a prediction path for the player to aim properly, using a simulation scene to accurately show where a projectile would land.

**Castanets** Small amount of Arduino scripting was utilized, in conjunction with C# scripting in Unity. This project uses an Arduino controller, simulating playing castanets. The castanets are hooked up to buttons in which the game would register as inputs. The game also relies on colour tracking through a camera by reading pixel locations, to determine the positions of the controller, while also allowing the player to adjust settings to allow for easier tracking under different lighting or circumstances.

**Weather** This project focuses on simple adaptive difficulty written in C#, determining the feasibility of survival using the player's progress, taking into account the player's inventory, survival time and death count. Chances of each hazard appearing is then weighted through said feasibility, and a random hazard is then generated according to this weighted chance.