

# Curriculum Vitae

**Jack Thomas Bulson**  
**Games Programmer**

**Location:** Newcastle-upon-Tyne

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**Website:** [jackbulson.dev](https://jackbulson.dev)

## Personal Profile

Video games and the industry surrounding them are something that I have always knew I wanted to be a part of. I am a reliable, friendly, and hard-working individual, and enthusiastic to learn new skills and solve problems in order to create great experiences for people to play and enjoy.

## Education

2018-2022 *MComp Computer Science (Game Engineering), Newcastle University*  
*Graduating in 2022*  
**Degree:** 1<sup>st</sup> in Year 1, 2 & 3 of Study, on course for a 1<sup>st</sup> in Year 4

As part of the 4<sup>th</sup> year of my degree, have gained a large amount of experience in C++, creating a password encrypter/decrypter and programming the physics and gameplay behind a game inspired by *Screwball Scramble*. Have also utilised OpenGL and shaders to create a tropical island graphics scene. When finished, will also have worked as part of a team to create a game, and will have created another dissertation.

Modules completed:

- Advanced Programming for Games(100%)
- Advanced Graphics for Games(90%)
- Advanced Game Technologies(Mark awaiting)

2015-2018 *Macmillan Academy Sixth Form*  
**A Levels:** Maths(A), Computing(B) and ICT(B)

2010-2015 *Macmillan Academy*  
**GCSE:** 10 A-C Grades

## Projects

2020-2021 *3<sup>rd</sup> Year University Dissertation*  
**Title:** Near Infinite, Procedurally Generated Terrain  
**Language:** C# (Unity)  
Created a tool that procedurally generates terrain to compare using two different noise implementations (Perlin vs OpenSimplex). A custom shader is used to texture the terrain using height and steepness values from the terrain.  
**Link:** [jackbulson.dev/university/2021/08/30/procedural-terrain.html](https://jackbulson.dev/university/2021/08/30/procedural-terrain.html)

2021 *3<sup>rd</sup> Year Game Development Module*  
**Title:** Gladiator  
**Language:** GDScript (Godot)  
Created a top-down action game set in a gladiator arena. Programming/art solely created by me, music and sound effects sourced externally.  
**Link:** [jackbulson.dev/university/2021/09/04/gladiator.html](https://jackbulson.dev/university/2021/09/04/gladiator.html)

For the past year, I have also been actively creating small, solo game projects which are also displayed on my website. More details about my university projects can found there too.

## **Past Employment**

Jun 2016-Aug 2018 *Stand Attendant at Showcase Cinemas*

Key responsibilities included serving customers, ensuring the stand was a clean and sanitary environment, working as part of a team and dealing with problems and complaints. As I became a more experienced member of staff, the I was trusted with more responsibility, such as managing stock replenishment on the stand. This helped me to develop my organisational and leadership skills.

## **Skills and Achievements**

### **Languages:**

C++ / C# / GDScript & Java

### **Software Experience:**

Godot / Unity / Visual Studio / Nvidia NSight

### **Gameplay Programming:**

Implementation of 3D physics system

Implementation of AI using state machines and behaviour trees

### **Graphics Programming:**

OpenGL Graphics Scene – Deferred Rendering / Real-time Shadows / Water

Refraction & Reflection

### **Miscellaneous skills, experience, and achievements:**

Version control, more specifically GitHub

Creating Gantt charts, UML diagrams for various university modules

2015-2017 Silver Duke of Edinburgh Award