# **Ethan Goodchild**

Portfolio: https://ejgoodchild.github.io/ Email: ethanjamesgoodchild@gmail.com

### **Profile**

I am a C++ and Unity games programmer who has self-published a title and has over a year of experience in the industry.

## **Technical Skills**

- Languages: C/C++ (3 years), C# (6 years)
- Game Engines: Unity (5 years)
- Software: Visual Studio, GitHub, Perforce, Microsoft Teams,

# **Work Experience**

**Lockwood Publishing - Tools Programmer** (July 2021 - Present)

- Expanded and maintained a tool which was used by various teams including marketing and environment art to test furniture assets in environments and create gameplay footage.
  - Wrote a custom animation timeline to aid this.
  - Worked with teams to gather feature requests to implement.
  - Achieved spot bonus 3 times for my hard work and dedication to the tool.
- Contributed to a tool which allows users to test clothing assets.

## **Education**

Newcastle University - MComp Computer Science (Games Engineering) (Sept 2017 – July 2021)

Achieved a 1st class master's degree.

Important modules:

- Advanced programming for games Taught me how to program in C++ and gave me an understanding of the language and the importance of memory management.
- Advanced graphics for games Learnt about the shader pipeline, rasterisation, textures, rendering and lighting as well as using C++ and OpenGL to build a renderer to create a scene and using GLSL to build shaders.
- Advanced games technologies Built a physics engine in C++ which dealt with collision detection and response, springs, pathfinding and AI.

Newcastle Sixth Form College – A-Levels (Sept 2015 – July 2017)

Maths: A, Computer Science: B, Physics: C, Extended Project Qualification – A

Consett Academy – GCSE (Sept 2010 – July 2015)

8 GCSEs, grade A\*-C, including Maths and English

## **Self-Published Titles**

Pasta Master: The Videogame (16th July 2021)

A 2D platformer I worked on for a while during my sixth form and university years. I gained invaluable experience from this project as it taught me what to do and what not to do when it comes to programming and the values of documentation, planning and not becoming a

feature creep. It was made in the Unity Game Engine and written in C# and is released on Steam with positive reviews.

# **Game Engineering Experience**

### **C++ Game Engine Physics** (*Jan 2020 – May 2020, Dec 2020*)

I programmed both 2D and 3D physics using the Newcastle University game engine to build a fruit collecting game and a Fall Guys inspired game. Both games include the use of collision detection/resolution, pathfinding algorithms and AI.

#### **C++ OpenGL Graphics** (*Sept 2019 – Dec 2019, Nov 2020*)

Wrote shader scripts in GLSL. Produced lighting effects, shadowing, reflection, transformations, post-processing effects and environment mapping to produce a scene using the Newcastle University game engine

#### **Procedural Terrain Generation** (Sept 2019- May 2020)

A tool I made for my dissertation in the Unity Game Engine can generate an infinite world which also considers the player's game objectives so that the desired biomes can be generated sooner.

# **Additional Experience**

## Web Developer - Pure Joy Wellbeing (July 2019 - Dec 2019)

Responsible for designing, programming, and maintaining the website: <a href="http://purejoywellbeing.com">http://purejoywellbeing.com</a>. Written in PHP and has an integrated scheduling system to book appointments.

#### **Customer Assistant - Vue Cinemas** (July 2018 – Nov 2019)

Responsible for cash handling, screen checking, cleaning, and general customer service.

#### Bar Assistant - Sodexo (St James Park) (Feb 2018 - Sept 2018)

Responsible for prepping and serving drinks at NUFC, operating a cash register and cleaning the workspace.

### **Hobbies and Interests**

In my spare time, I am currently working on my second self-published title. I also do a lot of running in my spare time and have completed several half-marathons. Lately, I've been learning how to use Blender.

#### References

Available upon request