Ethan Goodchild

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Profile

I am a C++ and Unity games programmer and soon to be a masters graduate in games engineering. I have developed my own game and am soon to publish.

Technical Skills

- Languages: C/C++ (2 years), C# (5 years)
- Game Engines: Unity (5 years)
- Software: Visual Studio, GitHub, Microsoft Teams

Education

Newcastle University - MComp Computer Science (Games Engineering) *(Sept 2017 – Present)*

Currently in the final year of my degree and predicted a 1st class mark.
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

Game Engineering Experience

Pasta Master: The Videogame *(Jan 2019 - Present)*

A 2D platformer I have been working on for a while which I hope to release on Steam in the future. It is made in the Unity Game Engine and written in C#. You can play an early version of the game which has the first 3 levels at https://ejgoodchild.github.io/pasta-master-the-video-game/Game/.

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

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 that can generate an infinite world which also considers the players game objectives so that the desired biomes can be generated sooner.

Additional Experience

Web Developer - Pure Joy Wellbeing *(July 2019 – Present)*
Responsible for designing, programming, and maintaining the website: http://purejoywellbeing.com. 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 experiment a lot with the Unity Game Engine as I am working to self-develop a platformer game. 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