

George McDonagh

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Experience

03/2024 - 12/2024 | Travel (South America, North America, Europe)

09/2023 - 03/2024 | Nequinox Studios | Senior Systems Engineer (C++, UE)

Part of a small team tasked with assisting a new US-based AAA studio with the development of their new **blockchain-based FPS IP**. Duties included **system architecture** and implementation within **UE5 (C++)**, reviewing and refactoring code, and assisting with internal R&D.

07/2022 - 01/2023 | Emperia Ltd | Lead Unreal Engineer (C++, UE)

Leading the development of Emperia's in-house **UE** tool, used to automate the downloading, importing, and rendering of 3D scenes created by clients via our Unity application.

01/2022 - 07/2022 | Baya Dynamics | Lead Programmer (C++, UE)

Brought in to lead development on BD's novel real-time **archviz** hospitality product. Worked with **UE4, UE5, and C++** to create a modular and maintainable framework of functionality that could be integrated with a huge variety of 3D environments (cruise ships, hotels, restaurants, etc.). Built a **Node.js (HTML, CSS, JS, JSON) web-application** to host the product via **UE's PixelStreaming** to clients over a secure user-based system. **Interviewed many candidates for junior programmer positions**, successfully hiring and integrating two on to our small team, providing support and management as their mentor. I am very proud of the team and the value I have contributed to the company, having received positive feedback from our clients with every deadline and demonstration.

06/2018 - 05/2021 | Team 17 Digital Ltd | Programmer (C#, C++, Unity, UE, JS)

Worked on a myriad of titles including Overcooked, Worms, Hell Let Loose, The Escapists, Mugsters, The Survivalists, and more. Worked with the following hardware and platforms: **XboxOne, Xbox Series X, Xbox Live, PS4, PS5, PSN, Switch, PC, Steam, macOS, Apple Arcade, iOS, App Store, Android, Google Play**. The majority of development was within **Unity (C#)** with some projects using **Unreal Engine 4 (C++)**. My responsibilities included: **gameplay programming (2D and 3D), UI programming, build automation management and publishing (Steam and App Store), liaising (and negotiating!) with the design and art teams, assisting and mentoring junior programmers.**

05/2016 - 01/2017 | Furnley House Ltd | IT Administrator

Company's main point of contact for internal IT support. Sourced and installed new hardware for offices in England and Northern Ireland, including internal data storage and employee hardware.

Education (Certificates available upon request)

06/2018 | De Montfort University Second Class Honours, Upper Division (2:1) BSc in Computer Science/Games Programming.

06/2015 | Leicester College Distinction* Distinction* Distinction (D*D*D) Extended BTEC Diploma in IT & Game Development

Personal Projects

- 3D deferred PBR-material rendering engine (Vulkan, OpenGL) (C++)
- glTF file loader, importer (C99)
- JSON parser (C99)
- Bitmap font and TrueType font file loaders (C99)
- Bitmap font and SDF font rendering engine (C99)
- Sokoban game written in Dart using the Flutter framework. Deployed on Android.
- Sokoban game written in JavaScript for the web. Mobile friendly.
- My website (georgemcdonagh.dev) (HTML, CSS, JavaScript, PHP)
- Chunked 3D terrain generator and renderer (OpenGL, C)
- WebGL renderer (JavaScript)

I love talking about my personal coding projects so please feel free to ask me more! :)

Hobbies, Interests

- Anything related to space
- Procedural generation and AI
- “Good” UI and UX design
- Reading (Sci-fi, classic literature, fantasy, philosophy)
- 3D Physics
- Game engine architecture
- Hiking, climbing, camping, everything nature
- Full stack web development + database management
- Piano
- Robotics and electrical engineering