Hey, I'm Matt!

To check out my portfolio, visit mattfiler.co.uk

About Me

I'm a Senior XR Engineer at Ultraleap with over 5 years professional experience building games, demo applications, and tools in Unity for desktop and mobile platforms. In 2020 I achieved First Class Honours in Games Technology at the University of the West of England, at the top of my class. Outside of work I develop mod tools for Alien: Isolation!

I'm a highly motivated and self-driven C# engineer with a passion for excellence, possessing a broad knowledge of various languages, pipelines, and tools. I have a strong commitment to delivering projects on time and eagerly embrace new challenges. I am comfortable in a project leadership role and always willing to go the extra mile to ensure success.

Professional Work Experience

- **Senior XR Engineer, Ultraleap:** *full time - November 2020 to present*
  - o Developing cross-platform hands-first XR demo applications and games in C# using Unity. Lead developer for Ultraleap's flagship demos including "Launcher" and "Blocks". Most recently released "Aurora" which can be downloaded via the Steam, Pico, and Lynx stores. Contributed to Ultraleap's open-source and internal tooling, including the creation of a novel form of hand-based locomotion.
  - o Concepted, developed, and maintained the company's internal web-based cross-team application release pipeline named "Obsidian", automating all actions across build pipelines, Git operations, release forms, signing, and app publishing; integrated with APIs from GitLab, Zephyr, JIRA, and more in PHP/JS and GitLab CI.
  - o Created an automated internal QA test pipeline using Unity and WinForms C# which could be used to evaluate hand tracking quality and performance, as well as automate previously time-consuming manual application test runs using pre-recorded data.
  - o Regularly project managed using agile techniques with JIRA, Miro, and other software.

- **Game Programmer, PlayWest:** *part time - August 2019 to November 2020*
  - o Developed educational games using Unity for the University of the West of England. Released three titles - creating frontends, level population systems, and internal pipeline tools used by the rest of the team. Helped with game pitches to external clients.
  - o Provided critical bug fixes and polish during the final stages of development for "iPatch Pirates" during my first few months. Later, I was given projects to rapidly prototype and push to release in a short timeframe, such as "Polygon Fitness" which I built alongside a 3D artist over a couple of months for an event on UWE's campus.

- **Tools/Web Programmer, University of the West of England:** *intern - July to August 2020, June to August 2018*
  - o Produced a research-focussed toolkit using DirectX and assimp for importing, editing, and exporting 3D scene structures, supporting C++ plugins to handle custom file types.
  - o Built a postcard generator utilising machine learning to generate context from user uploaded images; also developed a WebGL application to guide interactive tours around historical sites in Wales using pointclouds and GPS tracks recorded from drones.

Education

- **University of the West of England:** *Games Technology BSc(Hons)*
  - o Attended September 2017 to July 2020
  - o Achieved Bachelor of Science with First Class Honours: **year 1** - 71.5%, **year 2 -** 78.9%, **year 3 -** 75.5%
- **North Somerset Enterprise and Technology College:** *IT Practitioners Extended Diploma*
  - o Attended September 2015 to June 2017
  - o Achieved IT Practitioners Extended Diploma with D*D*D*: **18 modules** - distinction
- **Priory Community School**
  - o Attended September 2010 to June 2015
  - o Achieved bronze DofE, L2 Mobile App Development, and 11 GCSEs: **English** - A*, **Maths** - A, **Science** - A

Personal & University Projects

- **OpenCAGE:** *personal project - 2017 to present*
  - Reverse engineering Alien: Isolation's engine to build a suite of bespoke scripting and asset management tools from scratch, allowing for the creation of custom levels, characters, and missions through friendly user interfaces developed in C# WinForms/WPF. Worked to produce plugins for existing open-source tooling to allow for the modification of behaviour trees and other game configurations.
  - To promote the tools, I've developed mods which have been featured in a variety of gaming publications including IGN, PC Gamer, Eurogamer, and NME. I also worked with the YouTuber "AI and Games" to produce a deep-dive video on the game's systems, which has just surpassed 1 million views. Most recently my work was featured in the book "Perfect Organism".
- **Level Streaming System:** *university project - 2020*
  - Created a system in my own custom DirectX11 engine using C++ for building game levels via an ImGui interface, to be streamed at runtime based on a player's location within the level. Developed custom tools for the asset pipeline using WinForms C#.
- **Skybox Generator:** *university dissertation - 2019 to 2020*
  - Worked towards developing a toolkit capable of producing realistic skies for use in games, aiming to solve several novel issues such as HDR upscaling and cloud depth sampling from LDR images. Worked across multiple languages and interfaces including MATLAB, Python, shell script, PHP, C#, C++.
- **Mario Kart DX12:** *university group project - 2019*
  - Developed a custom game engine using DirectX12 with proprietary content management tools, for a recreation of the game Mario Kart. Produced and maintained the engine's asset pipeline for the team: consisting of low-level runtime asset handling functionality in C++, the creation and maintenance of custom file formats, tools to handle importing, upgrading, and converting asset formats in C#, and extensions to Blender in Python to allow graphical level editing with prop/trigger placement.
- **Alien Isolation Zombies:** *personal project - 2016 to 2018*
  - Built a map for the game Call of Duty: Black Ops 3 utilising Radiant. Scripted a custom campaign and produced marketing material including trailers and promotional teasers.
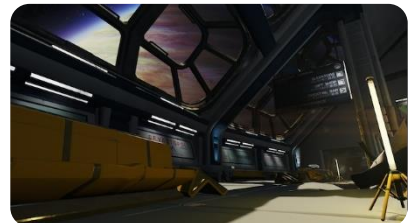
Many more personal and professional projects can be found on my website, along with additional information, videos, and pictures for each of these!

Contact Details

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Currently living in Bristol (UK), but willing to relocate.

References

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