Hey, I'm Matt!

To check out my previous work, visit mattfiler.co.uk

About Me

I'm a hardworking graduate with a passion for software development. I've just completed my Games Technology degree with First Class Honours at the top of my class and am looking to make a solid step into a career.

My experience in both paid and non-paid work covers projects in a range of languages such as **PHP**, **JavaScript**, and **Python**, with my core strengths being in **C++** and **C#**. I've worked with a diverse range of APIs and am always keen to learn and take on a new challenge. Through solo and group projects I have gained a solid understanding of **Git** for version control and am always comfortable in taking a leadership role. From low-level projects in **DirectX** to creating attractive frontend menus in **Unity**, I've always tried to vary my work in order to allow myself to quickly adapt to any task given to me.

Work Experience

- **Game Programmer, PlayWest (August 2019 to present)**
  - o At PlayWest I work in a team of 5-6 using Unity to develop educational games for the University of the West of England. My role in our larger projects is typically tools and systems, however I am often given solo projects to rapidly prototype and push to release. Working at PlayWest has been a good experience of managing workloads, communicating with externals, as well as working with a team closely in a professional environment. Following the COVID-19 regulations in 2020 we quickly adapted to working remotely.
- **Tools Programmer, University of the West of England (July to August 2020)**
  - o Over the summer of 2020 I took part in two internships with UWE. The first internship required me to produce a 3D toolkit for importing/editing/exporting scenes with support for plugins to handle custom file types. This was developed from scratch in DirectX11 and is planned to be used in some upcoming research projects. The second internship tasked me to build an online postcard generator utilising machine learning, intended for use in enhancing visitor experiences to attractions. The web app utilised GPS and the Google Vision API to generate context from images, and a trained machine learning model to generate poems to the context.
- **Extra Choice, Homebase (February 2016 to March 2019)**
  - o At Homebase I worked in the kitchen department to take and manage orders. In my spare time outside of work I developed a signage generator tool which massively improved the process of producing signs for use in store: speeding up creation time and eliminating human error. The tool was picked up by regional management and used across multiple stores, with very positive feedback.
- **3D Web Developer, University of the West of England (June to August 2018)**
  - o At this ten-week internship I worked with an organisation known as Artstation on a lottery-funded project for Keep Wales Tidy. The aim of the internship was to produce a WebGL pointcloud demo to showcase the potential of modern web technologies for interactive tours around historical sites in Wales. Following the internship, the demo was presented to the Welsh Heritage Lottery fund - which subsequently secured the group their next phase of funding for the project.

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*: **distinction** - all 18 modules
- **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

Other Projects

- **OpenCAGE (2017 to present)**
  - o OpenCAGE is a project to allow users the ability to modify behaviour trees, textures, and a range of other configurations in the game Alien: Isolation. In my spare time I'm working on reverse engineering the game's scripting format, alongside a fully 3D editor for the game. While working on the project I have spoken to a lot of the original team which has been a great learning experience.
- **Polygon Fitness (2020)**
  - o This was a project rapidly developed by me and a 3D artist at PlayWest over a couple of weeks to run alongside the national Row Britannia event. Situated in the lobby of UWE, the game was connected to two rowing machines and allowed users to physically row around landmarks in Bristol. Stats from the rowers were logged to a remote database and displayed on a stat tracking website.
- **Level streaming system (2020)**
  - o I developed a system in DirectX11 for building levels which can be streamed at runtime. This project was an exercise for me in creating a very simple and efficient "game engine" from scratch in C++, with tools and an external asset pipeline created in WinForms.
- **Skybox generator (2019 to 2020)**
  - o For my dissertation I aimed to create a toolkit that can produce realistic skies for use in games. While developing the project I worked to solve a number of novel issues such as HDR upscaling and cloud depth sampling from LDR images. The project allowed me to work across multiple languages and interfaces, including: MATLAB, Python, shell script, PHP, C#, C++.
- **iPatch Pirates (2019)**
  - o iPatch Pirates is an online educational game intended to tackle issues surrounding cyber security. I joined the team through PlayWest in the final few months before the project shipped and was tasked with adding achievement and tutorial mechanics, as well as UI animations and general polish. The game launched to all UWE staff and students across PC/Android/WebGL with good feedback.
- **PCSA ePlanner (2013 to 2016)**
  - o In my final years of secondary school I pitched, developed, and distributed a web app to replace paper log books for students and staff on site, known as the ePlanner. The app supported different functionality for leadership, tutors, parents, and students. It was developed mainly in JavaScript and PHP using MySQL and was accessible on PC and mobile, as well as through the iOS App Store.

Many more projects can be found on my website, along with additional information about each of these.

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References

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