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PROFILE

I have just finished studying Computer Games Technology at Abertay University and have a particular enthusiasm for gameplay programming and using procedural generation techniques within a game development environment. I have also been able to gain experience with graphics/shader, networking, and animation system programming. Through my time studying at Abertay, I have been described as hardworking, enthusiastic, and complimented on my teamwork and leadership skills alike.

TECHNICAL SKILL

- C++
- C#
- Unity game engine.
- Knowledge of mathematics used in game development
- DirectX11
- OpenGL
- Visual studio
- Source Control (Git)

EXPERIENCE AND EMPLOYMENT

Lagoon - Gameplay Programmer | 3rd Year Professional Project

Link - <https://www.hughtysonportfolio.com/lagoon-professional-project>

As part of my studies, I was able to spend several months as part of a student lead multidisciplinary team in order to create a game for a client within the industry. Our particular brief was from Spilt Milk Studios who tasked us with producing a relaxing, peaceful game centred around fishing and repairing a damaged plane. I was one of two programmers on the team.

Responsibilities

- The implementation of the third person movement system
- The creation of multiple camera's depending on the players state
- The development of the Plane Repair Mechanic
- The implementation of the Day/Night Cycle
- Involved in Design elements such as Level Design and story progression.

I found this project not only challenging but incredibly interesting as it allowed me the opportunity to learn from other students, while also allowing me to build upon my own skills and understanding. While working with other disciplines I was able to learn about their respective workflows and how we can come together to produce a finished product.

Procedural Landscape Generator | 3rd Year Procedural Generation Module

Link - <https://www.hughtysonportfolio.com/procedural-lanscape-generator>

This project's aim was to produce a finished application that utilised both procedural techniques and algorithms to create a realistic looking terrain. Developed using C++ in Visual Studio 2017, the application further makes use of the provided DirectX11 framework and ImGui API. The application begins by rendering a flat plane mesh, which users can manipulate through applying multiple procedural techniques. I genuinely enjoyed both the challenges

and accomplishments that I experienced when developing this project. This project greatly improved my problem solving skills and taught me how to research new procedural techniques that I could implement into the project.

R3P-41R - Gameplay Developer | Global Game Jam 2020

Link - <https://www.hughtysonportfolio.com/r3p-41r-global-game-jam-2020>

The Global Game Jam of 2020's theme was "Repair". In this game, the player goal is to travel from one end of the ship to the other completing puzzles along the way. However, if the player fails to get to the end of the ship before the ship explodes time resets and the player has another chance at completing the level. This was developed in Unity and gave me a better understanding of how the engine works. I was responsible for working on two of the challenges found in the rooms and the dialogue that appears with every failed attempt. I also worked in the engine to create the level layout and effects within such as smoke and sparks using particle system.

KFC Dumbarton - Team Members | 2016 - Present

I have had seasonal employment at KFC Dumbarton since the winter of 2016. Throughout my time in this employment I was tasked with duties that helped to develop several transferable skills. For instance, serving customers, face-to-face and through Drive-Thru, has helped not only develop my communication skills, but my ability to read situation and use intuition to act effectively. I have also been able to develop time management, team work, leadership and prioritising abilities when managing mine and my team mates several responsibilities.

SFW Ltd - Work Experience | June 20th, 2016 - July 8th, 2016

I was fortunate enough to attend a two-week work experience at a software development company, SFW Ltd. While at the company it was a privilege to receive opportunities I would not have normally received in my normal education. This included one-to-one meetings with employees of the company where they explained what their job was and allowed me to understand the technical side of the industry. While shadowing developers, I attended multiple meetings that allowed me to realise that even though they work individually together they form a well-rounded development team. This experience highlighted that teamwork is a key skill that is required to work within this industry while also having the ability to work independently.

EDUCATION

Abertay University — BSc Computer Games Technology (Predicted First Class) | 2017 – 2021

I have just finished studying at Abertay University where I am predicted to get a First-Class Degree. Recent modules include: Honours Project Proposal and Execution (A), Honours Project Dissertation (A), Applied Mathematics 4 (A), Applied Games Technologies (B). A list of all modules completed, along with the grades can be found on my portfolio website <https://www.hughtysonportfolio.com/cv>.

Vale of Leven Academy | 2011 – 2017

Higher:	Physics – A	Computing – B	Mathematics – B	English – A	Chemistry – B
National 5:	Physics – A	Computing – A	Mathematics – A	English – A	Chemistry – A

I attended the Vale of Leven Academy between then years of 2011 and 2017. Through this time, I received qualifications in both National 5's and Highers' while serving as the schools Head Boy in my 6th year.

HOBBIES AND INTERESTS

In my spare time I continue to try and develop my knowledge of game development. I have recently started taking an interest in developing in Unreal Engine and have been improving my personal abilities through online courses which I hope will benefit me in my future career. I also enjoy playing a range of games, varying from fast-paced online games that I play with friends - such as "Rocket League" and "Call of Duty" - to more analytical and logical games - such as the "Football Manager" series.

Outside of video games, I have a keen interest in sports, such as football and badminton. Since coming to university, I have been an active member of the Abertay Badminton Club and have been fortunate enough to represent the club as both first team captain and President. Not only have I really enjoyed my time on the committee, but the position has taught me a lot about leadership and responsibility. Additionally, I have a passion for football and have recently started a podcast with friends talking about Scottish Football.