Matthew Jenkinson

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Personal Profile

Graduate of Edinburgh Napier University - Looking for a career in Graphics Programming in the Games Industry.

I am fascinated by the advances made in graphics technology and am keen to get the most out of today's hardware. Currently I am upgrading my Honours Project to use Vulkan.

Technical Skills

- C / C++
- OpenGL / GLSL
- DirectX / HLSL
- Vulkan
- Unity3D / C#
- Unreal Engine 4 / C++ / Blueprints
- Visual Studio
- Git
- CodeXL

Education

2014 – 2018: Games Development BSc (Hons), Edinburgh Napier University (2:1)

4th year modules included:

- Concurrent & Parallel Systems (Pass)
- Advanced Games Engineering (Merit)
- Information – Society & Security (Pass)
- Computational Intelligence (Pass)
- Honours Project – Programmatically Generating Normal Maps from Albedo Textures (Merit)

3rd year modules included:

- Project Game Technology (7/10)
- Design Patterns for Games (9/10)
- Automated Games Design (7/10)
- Graphics Programming (7/10)
- Advanced Physics (8/10)
- Survival Dutch (8/10)
- Intercultural Skills (9/10)
- Virtual Reality Fashion Experience (8/10)

2nd year modules included:

- Systems & Services (Merit)
- Database Systems (Merit)
- Software Development 2 (Merit)
- Intermediate Mathematics (Pass)
- Software Engineering Methods (Pass)
- Computer Graphics (Merit)

1st year modules included:

- Computer Systems 1 (Pass)
- Foundation Mathematics (Merit)
- Software Development 1 (Merit)
- Intro to Human Computer Interaction (Pass)
- Mathematics for Software Engineering (Merit)
- Programming Fundamentals (Merit)

2012 – 2014: A Levels, Shelley College

Mathematics (C), Physics (C), Graphic Design (C)

2009 – 2012: GCSEs, Shelley College

13 GCSEs, grade A-B including English (A) and Further Mathematics (A)

Honours Project

For my final year Honours Project, I decided to create an application to create normal maps from existing albedo textures. I was inspired to do this as I had experimented in creating normal maps in the past, and I was determined to be successful in doing so.

I wrote the application in C++ with the OpenGL API using only a few libraries including GLEW, GLFW, and SOIL. The preview window for it ran on the GPU using GLSL.

After implementing my algorithm to generate the maps in my application, I interviewed users to find out their opinions on both the program and its output. Once I did this I was able to adapt my algorithm to their responses; subsequently when I interviewed a new group of users, I obtained a much more positive response.

Relevant Experience

September 2016 – January 2017: Student undertaking project on behalf of G-Star

Virtual Reality Fitting Room

Studying abroad in Amsterdam, I worked in a team for a real-world client - the fashion company G-Star. My team's task was to create a virtual-reality (VR) fitting room for the HTC Vive. My role was to build the locomotion and user interaction functionality, which I completed successfully using C++ and blueprints in Unreal Engine 4. Additionally, I was tasked with modelling and motion capture work to create the prototype, for which I used a range of tools including Autodesk Maya.

January 2017: Game Logic Programmer, Global Game Jam 2017

The theme for this Game Jam was Waves. The concept for my team's game was to have waves of enemies attack the player, the catch was that these enemies were ghosts and could only be seen if the player shot them with a magic wave akin to a ship's radar.

My task on the project was to implement the visuals of the enemies appearing when they were hit and disappearing again after a short time. I did this using C# scripts in the Unity3D games engine. I was also made responsible for maintaining the codebase, making optimisations, and fixing bugs.

Hobbies and interests:

In my spare time I like to work on various programming projects from Discord Bots to Graphical Applications to Web Apps. Currently I am improving upon my existing projects.

One of my favourite games is Rainbow 6: Siege as it is highly competitive and requires good coordination and teamwork to be successful in it. I also enjoy playing Dark Souls as it rewards players who pay attention and prepare for what lies ahead.

References available on request