

Leroi Aaron Walwyn
(+44) 07538584536 | me@aaronwalwyn.com
16/3 Grove Street, Edinburgh, EH3 8BB
www.aaronwalwyn.com

Education

Heriot-Watt University | Sep. 2014 – July 2017

I was awarded direct entry into second year to study BSc (Hons.) Computer Systems with Games Programming. So far in semester one of my final year I have achieved a grade of 68.75% and am aiming for a first-class degree by the end of the year.

Studied a large range of modules including:

- Games Programming.
- 3D Graphics & Animation.
- Object Oriented Programming.
- Conversational Agents & Spoken Language Processing.
- Industrial & Rigorous Programming Methods.

For my dissertation project I am developing an Augmented Reality treasure hunt on the university campus, as a part of the project I am developing techniques to track a user's position and viewport in the real and virtual world simultaneously. For the project, I am using Unity3D and ARToolkit; implementing some of the latest techniques to create an immersive AR experience.

As part of the 'Conversational Agents' module that I am undertaking, myself and two other masters' students are researching current dialogue systems featured in modern games and attempting to develop a procedural dialogue system allowing users to interact openly with a non-playable character. This project is also in collaboration with Speech Graphics to create characters that generate dialogue and animate procedurally in real-time.

During third year, I participated in a yearlong group project, in association with Lockheed Martin Civil to develop a web based application allowing users to enter their educational and employment history. The application would subsequently offer the users a range of jobs and courses that might suit the user. I acted as a project leader and developer over the course of the year and overall my group achieved a mark of 81%.

Bangor University | September 2013 – August 2014

Studying: Computer Science (BSc) (75.2%) Studied a range of subjects including Computer Graphics and Human Computer Interaction; I also, worked with the Bio-Medical Imaging department within the university to create 3D models of human joint structures. Completed first year before transferring to Heriot-Watt university.

Christleton High School | September 2011 – August 2013

A-Levels: Maths (D), Physics, ICT (C) & Computing (C)

Bishops Blue Coat High School | September 2006 – August 2011

GCSEs: Maths (A), Biology (A), Chemistry (B), Physics (A), English (Lit. B, Lang. B), ICT (2xDistinction), DT (A*), Geography (B), Religious Studies (C)

Technical Skills

| | | | | |
|-------------------------|-----------------------|---------------------|--------------------|-------------------|
| C# | C++ | C (Objective C) | SPARK (Ada) | Java |
| Mono | OpenGL | Assembly | X3D | .Net |
| Python | Bash | UnityScript | Unity3D | Lumberyard |
| AI for Game Development | Interaction Design | Dialogue Systems | VR/AR Technologies | Game Design |
| Rigorous Programming | Networked Application | Console Development | Mobile Development | Technical Writing |

Relevant Experience

Speech Graphics | Software Engineer | September 2016 – Present

Developed a VoIP application integrating Speech Graphics' real-time facial animation system allowing users to communicate over a network with audio and synchronised facial animation. The application was developed in Unity3D targeting a range of devices including console and mobile platforms. One element I'm most proud of was developing a system that automatically scales the number of active blendshapes depending on the priority and impact of the change, allowing the application to run at 30FPS on older mobile devices which had previously been running at ~3FPS without any noticeable difference in quality.

During the development of the application I also developed a range of Unity3D integrated extensions specific to using the real-time system, such as .Net bindings and generic controllers that could subsequently be released to third-party developers as part of the range of services Speech Graphics offered to third-parties.

The Lonely Pond | Project Designer & Developer | May 2014 – September 2016

Part of an independent development duo, during this period I developed game several prototypes, as well as completing and publishing my first game 'Defend the Rocket' available on all mobile and desktop platforms. Defend the Rocket was created using the Unity3D engine and programmed in C# over the course of the year. The project began as a simple 2D tower defence prototype I made to learn the Unity 3D engine; over the course of a year and multiple iterations it progressed into the finished project; to date the game has achieved over 1000 downloads.

The Hogcraft Project | May 2011 – May 2013

A level design project that I undertook re-creating J.K. Rowling's world of Harry Potter in the popular game Minecraft. To date the project and associated files has received over 600,000 downloads and has accumulated over 1.5 million views on YouTube, on official videos of the project.

*Further project information and code snippets available via my website.
References available upon request.*