My undergraduate degree in Computer Games Applications Development at Abertay University has given me the opportunity to learn a wide variety of software packages and provided a very good level of knowledge in software engineering.

Along with knowledge in software engineering, the course has also given me the opportunity to develop my skills in Artificial intelligence topics.

For instance the module “Pathfinding in games and Agile Development” has allowed me to grasp the concepts of different pathfinding techniques like the lee algorithm and the A\* algorithm.

I have also completed multiple mathematics modules over the duration of the course and achieved very high marks in all of them. Thus providing me with a very sound understanding of advanced mathematical theories that would be relevant to this course such as matrix mathematics and kinematics.

The module “AI for Game Development” has not only given me a fluent knowledge in early concepts of AI such as rule-based-systems and fuzzy logic. It has also given me a good understanding of artificial neural networks such as self-organising maps and multi-layer perceptrons.

I have based my honours project on evaluating multi-layer perceptron training techniques to see if alternative faster training methods can compete with error-backpropagation. This has allowed me to gain a better understanding in how multi-layer perceptrons work and given me a view into early deep learning techniques.

Throughout the entire course, I have mainly used the programming language C++, giving me an excellent understanding of the language. I have also had to work with other programming languages such as java and python and have been able to acquire a sound understanding of how they work. Through doing this I have the ability to learn new programming languages when necessary.

I have completed multiple modules based on programming for the PlayStation vita, through this I have gained a sound understanding of creating software for external and standalone hardware. I have also used computer vision techniques such as SLAM (Simultaneous localisation and mapping) through these modules to allow an application to generate a game area in augmented reality.

I have worked with electronics all of my teenage and adult life through working at Stewart Technology and have a very sound understanding of how important a role software plays in electronic products, this has allowed me to be more cautious and thorough in my own process of developing software.