

The main objective for my study and research during my Master's degree is to explore the use of machine learning within games and education. Artificial intelligence is becoming more and more common in everyday life with big companies like Netflix and Apple using machine learning to get more accurate recommendations for its users. Advanced technology such as this must have a place in our education systems to give students a more personalised learning experience, if we all enjoy different genres of film then we must all enjoy studying different aspects of subjects and ways to learn these just as much. One project which I have been thinking about is creating a game which gives the user quests that utilise skills learnt from classroom activities. This will be intertwined with machine learning by giving the student more tasks based around the aspects they are struggling to understand, helping them concentrate on improving this area of study. This type of game could be used for a variety of subjects which I will hard code into the software when I have decided to pursue.

The use of games as a tool for education has been well documented for decades and the prevalence of computers has only increased the effectiveness of gaming for education which leads me to thinking that a game would be a suitable platform to research the use of machine learning for education. On a personal level, another reason I wanted to explore this platform is due to having a young family member who suffers with autism and who enjoys learning most when it is presented in the form of a game and if he can enjoy it, he will repeat the process and be more likely to remember what the game is teaching.

If I was to be successful with this application I would expect to be undertaking a Master's program that would have an interest in Artificial Intelligence and one which will be able to broaden the quality and quantity of programming languages that I can write substantial and effective code in. This is evident in the computer science master's program at New York University as one of its main aims for the courser is to better understand new and current technology, of which artificial intelligence is. Another program that has the structure that will support my development is the computer science masters at UC Davis, this comes with the bonus of being relatively close to the Bay Area in California which is a hub for technology companies, making it my top choice for university.

This plan fits with my previous education having completed my degree in Computer Gaming Technology and having analysed and used procedural generation for my dissertation piece in the final year. During this course I completed a module that was based on Artificial Intelligence which captured my attention and made me start thinking about how this technology can be used in a way which everyone will benefit. My future objectives include working in software engineering within this specialization and further delve into uses of AI in education systems