

Project Description

The aim of the project is to create a first person aim training & limit testing style shooter game that makes use of genetic algorithms along with behaviour profiles to automatically make the game harder to play based on the individual's play style and level of skill. We love competitive and unique games ourselves and understanding this we intend to make this a satisfying experience by letting the player constantly improve and be challenged by higher difficulty. So, we concluded that we need to aim to use a database in order keep track of each player and player's enemy behaviour profile and how well they perform i.e., how many enemies they can hit in a given time frame, in order to successfully implement a scoring system to create competition in the leader board. To achieve this idea, the game engine we decided to use was Unity.

Results

What we hope to see is the implementation of genetic algorithms being used to increment the difficulty of the game whilst testing the efficiency of the player as the algorithms implemented will make the game harder for a more skilled player which will be evidenced by the players behaviour profile. Over time the players performance should go down in respect to how many targets they can hit in the given time due to the genetic algorithm evolving to the player's style. This then becomes a unique evolving AI which is only limited by the technology it is being computed by, due this unique mechanic idea, we decided our name project "IMPOSSIBLE", as the AI enemy will literally evolve according to the player without limits until the player should not be able to physically interact with their too advanced enemy generation. The feeling of being constantly challenged should encourage every player.