**Student Name:** Jake Walder

**Programme:** BSc Games Programming

**Title:** Developing a Mobile Game using Visual Stimuli to Increase Human Reaction Time

**Outline:** The goal of this project is to create a mobile game that has the ability to improve the reaction time of the user. This will be achieved using visual stimuli on the phone screen combined with physical engagement from the user to progress through the game. The game will increase in difficulty by requiring a shorter reaction time as the game progresses, leaving the user with a heightened reaction time after an extended period of play. During the development, research will be done to aid the design of algorithms for a point scoring system using the reaction time of a human. This will consider the average reaction time of a human, a time that is considered too slow (or dangerous in certain situations i.e. driving), and the fastest possible reaction time (acknowledging the processing time of the phone and brain). The game will be tested vigorously and optimised as the processing time needs to be as slow as possible to give accurate readings and scores. Unity3D will be used for development, and the target will be Android devices.

**Proposed supervisors in order of preference:**

1. Karsten Pedersen
2. Fred Charles
3. Vedad Hulusic