# Appendix A, CI301 The Individual Project Proposal Form

The deadline for submitting this form and the Ethics Check List is Friday October 11th, 2019 by 15.00. Your proposal will be marked on a Pass/Fail basis.

Name: Shane Butt

Title of project:

“A locally optimised genetic algorithm for the classic game ‘Snake’”

Which course are you studying?

Computer Science

Your Proposed Project

The goal of the project is to implement some form of localised learning algorithm (DeepQ Learning, Genetic Learning, etc.) and then comparing it with other methods (Greedy Search, etc.) to see how efficient and effective each algorithm is at “solving” (completing) the game of Snake.

The first step would be designing the game of Snake itself, with some minor added features, and then programming it to work from a player perspective.

After this I will research methods that have already been done to “solve” this problem, such as using a Greedy Search algorithm, for example.

I will then implement different solvers, including my own, to learn how to play the game of Snake, and hopefully, my algorithm will prove successful, or at the very least be a solid proof of concept.

Your supervisor's name: Almas Baimagambetov

If there are any major hardware/software resources required from the University, have you checked that they will be available for your use?

~~ Yes~~

~~ No~~

 Not applicable

If the project is for an outside client or organisation, we need a letter saying they approve of your proposed project and will support it as far as is necessary:

~~ Letter attached~~

~~ Awaiting letter~~

 Not applicable

Date: 10/10/19 (dd/mm/yy)