Team Members:

- Natalie Leon Guerrero

- Medina Lamkin

- Kallen Harvey

- Erik Nordin

- Scott Patterson

**Machine Learning proposal - Snake neural network**

This neural network will be used for teaching a game of snake to play itself in order to maximize its length and score. In the game, a snake will be confined to a program window and will seek out fruit in order to grow itself. The snake cannot run into itself of the borders of the window, otherwise the snake will immediately die and the game will be over. We will be using python for developing the snake game and the neural network to train it. The neural networks we have decided to use are --REDACTED-- and --REDACTED-- as we believe these two approaches will be interesting to analyze to compare and contrast different learning rates. In order to quantify success, we will look at how long the snake is, number of epochs until convergence is reached, and the total accuracy of the network as a whole comparing the average length of the snake and the number of epochs that have passes. The outputs will be the suggested direction the snake should go without dying. The inputs coming into the network will be --INSERT INPUTS HERE-- as these will be enough to give the neural network “vision” to what’s around it and the best way to solve the snake game.

--FEEL FREE TO ADD OTHER THINGS TOO--