**Notes on ANN for presentation**

* We want to find make an artificial neural network that can play the game at a high level.
* Neural network that would work for our case:
  + Four input nodes, the observations
  + Four hidden layer nodes
  + One output node, 0 or 1
* Look closer at one node in the hidden layer
* For every node, activation
  + 0 or 1
  + Between 0 and 1
  + 0 to positive infinity
  + Etc.
* Activation decided by:
  + Nodes in previous layer
  + Weights
  + Bias
  + Activation function
* Weights
  + How much previosu layer node influcences node
* Bias
  + How high value before activation
* Activation function
  + Convert number to useful value
* Activation functions
  + ReLU / rectifier
  + Logistic / Sigmoid
  + Hyperbolic Tanget
  + SoftPlus
* Our network
  + Started with 4 hidden nodes
  + Testing showed single node hidden layer was faster
  + Function for hidden layer node
  + Function for output node
* Weights and biases to optimize
  + These are the ones we wish to find
  + The ones that will lead to the correct prediction from the input values
* Activation in out node?
  + 0 – apply force left
  + 1 – apply force right