Question What is an Artificial Neural Network?

A Neural Network is a robust function that takes an arbitrary set of inputs and fits it to an arbitrary set of outputs that are binary.

What makes NN special is their use of a hidden layer of weighted functions called neurons, with which you can effectively build a network that maps a lot of other Functions! Without a hidden layer of functions, Neural Networks would be just a set of simple weighted functions.

Neural Networks are denoted by the number of neurons per layer. For example if we have 20 neurons in our input layer, 10 in one hidden layer, and 5 in an output layer, it would be a 20-10-5 network. If there is more than one hidden layer then we would denote it as, say, 20-7-7-5 (the two middle 7s are layers with 7 nodes apiece.

To summarize a NN comprise the following parts:

- The Input layer → entry point (Data 😊)
- The hidden layer → HAVE THE AVAILABILITY to model Non-linear data
- Neurons → each hidden lay contains neurons (activation function)
- The output layer → Data with neurons in it
- The training algorithm → Back propagation (epochs)

Gradient descent