

Perceptrons  
AI/ML Guild Lab #2  
February 2, 2021

## 1 Multilayer Perceptrons

It's really a misnomer to call Multilayer Perceptrons *multi-layer*. It's not a perceptron with multiple layers but instead it is a network of multiple “neuron-like” processing units but not every layer in the network is a perceptron.

Recall that the perceptron equation:

$$\phi(x) = \sum_{i=0}^N W_i x_i + b$$

What would happen if you applied multiple layers of this equation?

## 2 History

Dudes named Rumelhart, Hinton, and Williams introduced/discovered this algorithm in the mid-‘80s.

## 3 The Math