

**In Week 3 a detailed explanation has been introduced to the Neural networks and its structure, how the neural net is composed of layers and symbols regarding these layers.**

**The concept of vectorization of the input data and its benefits in speeding up the learning process in our case, also the idea of activation function and when to choose every one.**

**We also got to learn the gradient descent of the neural net and the equation behind this concept.**

**Finally in week 3, the idea of randomly initializing our weights were introduced.**

**In Week 4, we have moved to the structure of the deep neural network, and get to know how to do the forward and backward propagation with the deep net. The structure and the building blocks of the neural network were introduced.**

**A comparison was introduced to show the difference between the parameters and hyper parameters and how to tune them and the explanation of each parameters and its effect in our problem.**