

Report on Deep Learning and Neural Network

In this week, I learned about neural networks i.e, what is neural network, how to represent them, how are they analogous to brain, etc. I also learned about broadcasting in python, which I was not able to understand in week 1. I learned about vectorization and how fast it is from for loop. I also understood what is activation functions and how to calculate gradient descent. I also learned about ReLU function and why it is better to use ReLU in hidden layers and why it is better to use sigmoid function for output layer.

I learned about forward propagation and backward propagation. I also watched 3Blue1Brown videos on neural networks which gave me more clarity about what actually neural network is and how it works, especially they help me to understand back propagation clearly which I was not able to understand through Andrews lectures. He explained using an example of deep learning model to recognize numbers from images which gave me more clear understanding of weight and bias indexing and their dimensions. I also learned about sensitivity of weight and bias.

That's it for week 4.

Thanks.