WEEK 2

INTRODUCTION

This week is going to be very important as you will be getting the very basics of the most vital component of this AI era, which is known as the **Neural Network.** Before that we will have a quick glance at **Logistic Regression** which is an example of a classification model.

LOGISTIC REGRESSION

Logistic regression is in many ways similar to linear regression, but differ in some ways. It gives an output of 0 to 1, where 0 being False or 1 being True.

Reference:

The below link will help you understand why to go with logistic regression. Reading till that would be suffice.

https://medium.com/data-science-group-iitr/logistic-regression-simplified-9b4efe801389

https://medium.com/greyatom/logistic-regression-89e496433063

Loss Function

https://towardsdatascience.com/understanding-binary-cross-entropy-log-loss-a-visual-explanation-a3ac6025181a

Activation Functions

https://medium.com/@snaily16/what-why-and-which-activation-functions-b2bf748c0441

NEURAL NETWORKS

Introduction

You complete it.They should get the overall idea of the working of neural network this is a really really good source.

Going through the below videos is more than suffice to understand neural network.

https://www.youtube.com/watch?v=ALQ_RNSRE40

https://www.youtube.com/playlist?list=PLZHQObOWTQDNU6R1_67000Dx_ZCJB-3pi

https://towardsdatascience.com/the-basics-of-deep-neural-networks-4dc39bff2c96

Gradient Descent Neural Network

https://developers.google.com/machine-learning/crash-course/reducing-loss/video-lecture

Please refer the sub topics of Reducing Loss.

Tensorflow Playground

This will help you understand how everything comes together.

PRACTICAL

Linear Regression Notebook:

https://colab.research.google.com/drive/1zFnm6rfszd-NMZnvG8VOteDihOXsEEfx