



WEEK 1

INTRODUCTION

Welcome to week 1, this week we will go through few of the basic concepts in Deep Learning. There is a very helpful and active community of AI enthusiasts online, so make sure to utilise those free and enriching knowledge on your journey. It is recommended you **keep an organized note** for yourself.

KEY TERMINOLOGIES IN ML

REFERENCE: <https://developers.google.com/machine-learning/crash-course/framing/ml-terminology>

Have a brief understanding of the above terms, these are few unavoidable terms in machine learning. You may encounter with more terms, such terms are to be googled and learnt.

LINEAR REGRESSION

Introduction

Reference: <https://medium.com/datadriveninvestor/basics-of-linear-regression-9b529aeaa0a5>

The above link will give you an idea about linear regression. There are multiple ways to get the best result in linear regression .

The cost function, gradient descent

Reference:

<https://towardsdatascience.com/introduction-to-machine-learning-algorithms-linear-regression-14c4e325882a>

Need not go through the code, we will cover that next week.

<https://developers.google.com/machine-learning/crash-course/descending-into-ml/video-lecture> (Optional)



<https://developers.google.com/machine-learning/crash-course/descending-into-ml/linear-regression> (Optional)

You can also refer 3Blue1Brown videos on youtube once your done with the above topics

PRACTICAL

- Introduction to google COLAB:

<https://drive.google.com/open?id=1Sga0fgP1eozgR-tze3bB8O9rIJBpV3-7>

- Getting started:

https://colab.research.google.com/drive/1PNbHBAS_caO-677nt5zCL33KaHklRfkG#scrollTo=F4HEsEuYexO7.

You are encouraged to look online for further resources, if you find anything worth sharing you can add it in:

<https://docs.google.com/document/d/1sqSULwoVegqTpgvPoOVVskITnFD3KM15nlvwIDtRBSo/edit?usp=sharing>

The above references may include more or less than of what your expected to learn.Hence it is recommended that you do your own study from different sources. The exercises will give you a better idea of what is to be learned.

*The above resources will be updated throughout the week.