**BWF Machine Learning – Deep Learning WEEK 1:**

**Introduction to version control by github:**

I have thoroughly gone through this link mentioned below:

[*https://www.freecodecamp.org/news/introduction-to-git-and-github/*](https://www.freecodecamp.org/news/introduction-to-git-and-github/)

In this I have got to know the basic knowledge about what actually Is **git** and **github.** By this basic knowledge I have learnt as well as implemented to make my own personal github account. It taught me the basic of how the github was created and in which year and it is going to be the most useful tool for the developers. By using github we can store our codes and with the help of git we will be able to track them down. Git hub is a kind of host which will allow us to upload out basic codes and allow the other developers to get interacted with our developed codes as well. In this way we will be able to implement and with the help of this tool we can help ourselves grow even further.

**Git branching hands on learning:**

I have completed and gone through all of the information which has been provided to us under this link added below:

<https://learngitbranching.js.org/>

With the help of this link I have got to know some basic uses of the git and how are we able to implement them. By the help of this wonderful site I was able to thoroughly go through the basic branches and some keys which we can use along with that I have actively solved the quiz that was provided at the end of every new chapter to make sure that the things that are being taught to me can be proven beneficial to me by practicing them further.

**Understanding key terminologies and difference between them:**

[**https://towardsdatascience.com/data-science-vs-artificial-intelligence-vs-machine-learning-vs-deep-learning-9fadd8bda583**](https://towardsdatascience.com/data-science-vs-artificial-intelligence-vs-machine-learning-vs-deep-learning-9fadd8bda583)

With the help of this link I was able to go through some basic concept and the main differences between AI/ML/DL/Data-Science.

Below I will be elaborating from my side some basic differences between all of these fields and what I have got to learn with the help of the provided source above:

**Artificial Intelligence (AI) :-**

Artificial Intelligence is a broad term and its basic reference is towards augmented reality. The word augmented reality has itself a very deep meaning in side it. This means that the thing which normal human beings could do, the same tasks can be performed by the computer or software in much lesser time and faster rate the output or the result could be more efficient and in greater quantity then a normal human could do. The only motive in point of what AI has is to replace the humans with the computer work.

**Machine Learning (ML) :-**

So we need to understand that machine learning is the study of methods that we can apply to build AI applications that can help us automate our tasks. Mostly in Machine learning, we deal with structured data which is simply the tabular form of data that is structured in the form of rows and columns. So by proving the structured data to the ML models we simply train pout models to do predictive tasks for example by using a decision tree algorithm, we can predict the house pricing of a given area or location.

**Deep Learning (DL) :-**

DL(Deep Learning) on the other hand is a more efficient and more broad subset of AI that enables us to even do the tasks that conventional ML models were unable to perform. DL can into being to overcome the limitations of ML. It is just because of the layered network of DL it can also do tasks by taking input in the form of structured as well as unstructured data. This broadens the horizon for all AI developers to produce more amazing AI models, and applications by even utilizing unstructured data in the form of text, images, and music.

**Data Science :-**

Moving into Data Science (DS) we must understand that it is a different field than that of AI. It is just an interdisciplinary field that is the study of data, Doing EDA, and extracting useful insights from the data. It is being done with the help of statistics, and software like STATA, SDSS, and many more. It involves doing surveys collecting data and then looking at how the data can be made useful and how it can be visualized.