WEEK 2

**Week2**

**Video-1) Introduction**

How to decide and work on Building AI projects.

What are the steps to decide AI projects

**Video-2) Working flow of Machine Learning projects**

Three main basic requirements for building ML project are:

1.Collect Data

2.Train Data

3.Deploy Model

Eg. Labelling car images to train and deploy model to detect cars using ML.

**Video-3) Work flow of Data Science Projects**

Three main observations to be observed:

1. Collect Data
2. Analyse Data
3. Suggest Hypothesis/actions

Eg. A mud clay Glass getting manufactured and analysing the process with collecting data like no. of hourse required to keep the product in furnace, which clay heat time was less than other, how much etc…. all types of statistical data.

**Video-4) Every Job Function need to learn How to use data**

Different sectors were shown with their practical application distinguished between Data Science and Machine Learning such as Resume/Hiring process, Marketing sales and agriculture etc… One thing to note is Data Science is the extraction or conclusion/hypothesis made from what is obtained and Machine learning is the result of what previously has been feed.

**Video-5) How to choose an AI project (Part-1)**

The basic idea to choose an AI project is by finding an intermediate area of field between what AI can do and valuable for your business (here business for us means: building an AI project for gaining experience in college)

A diagram of a diagram

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Conclusion: Even with small amount of Data-set still we can progress in our project.

**Video-6) How to choose an AI project (Part-2)**

Here it is discussed to How to doublecheck whether the AI project is worth or not and How many months to close/submit? Etc… decisions

To take those decisions we need to perform two things:

|  |  |
| --- | --- |
| Technical Diligence | Business Diligence |
| Can AI system meet the desired performance | **Lower costs** |
| How much Data is needed | **Increase revenue** |
| Engineering Timeline | **Launch new products or business** |

**Video-7) Working with an AI Team**

AI team should be provided with data set so they can measure the performance in terms of accuracy, faults, miss etc..  
There are two types of data set:

1). Training set

2). Test set

Limitations of ML:

1).Insufficient DATA

2).Mislabelled Data

3).Ambiguous Data

AI Technical Tools:

* TensorFlow
* PyTorch
* Keras
* MXNet
* CNTK
* Caffe
* PaddlePaddle
* Scikit-learn
* R
* Weka