Article

Why Should We Choose Microsoft Azure Machine Learning?

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Introduction

This article is a continuation of my previous one in which we were dealing in brief about what Machine Learning is, what are the techniques that we have in machine learning, etc. Here, we will be working with the Workflow of machine learning.

Links

Click here to start with machine learning on Microsoft Azure.

Machine Learning Flowchart

Machine learning follows a flowchart or a Workflow with all the topics given.

- The question which is going to be posted towards the model.
- Gathering the data that we need.
- Model has to pick the algorithm.
- Model has to be trained for the specific work.
- Model has to be tested.

Question for the model

This is the first very basic step that plays a major role in machine learning. We should pick the correct question which the model has been trained to answer.

Data prepared

The correct data, which is proper for the question, has to be given as the input data for the machine learning model, which the machine learning will be using for refining the correct answer from it.

Algorithm

Model has to pick the correct algorithm for delivering the correct answer from the given input data from the supervised and unsupervised clusters of machine learning concepts.

Training the Model

Training the model is the next important role in machine learning, we should provide the correct data, in which the model has to be trained in such a way that it provides the correct answer for us towards the question posted.

Testing the Model

We do this to check whether the model provides the correct solution or not. It also checks the performance of the algorithm.

We can build all these models, using the built in models that are available in Azure. This provides graphical information for your model that has to be built on machine learning. This can give the values which are the solution for your algorithm or it can also work if it is in need of even more refinement. You can then change the algorithm from the testing model or you can change the input data that has been prepared to perform on the machine learning concepts.

Overall, we should always define the correct question for which we are going to get the correct algorithm with the given data set and which will refine the correct output. The data will not always be available in the specific data format that we need. In most cases, it has to be altered into a structure, which we can use. We should also make sense with the data that we give so we will get a better result.

Machine Learning Infrastructre and Why you should go for Microsoft Azure

As far as we discussed, we are dealing with machine learning concepts on training a model, altering the given dataset etc. Now, we will be going with the role of Microsoft Azure on machine learning.

In machine learning, we should make sense of the points given below, which are highly important.

- *Manage the Data* Build a Machine Learning Solution.
- *Deploy a solution* that can be easily used.
- *Control Access* should give Control Access so that only the authorized user can get access to it.
- *Maintain the Solution* it should allow us to easily Maintain the Solution as the requirement changes.

All these constraints given above can be satisfied with the help of Azure machine learning.

Azure machine learning allows you to gather large amounts of different structural data such as SQL, Blob, Stream, Spark and Data Lake. Within Machine Learning Studio, we can use all this as resource data, we can create a work flow which can be a trained model that can work out the questions posted by us. We can make all these solutions or predictions that have been given by the Machine Learning Studio and different sorts of data such as Web Services using Microsoft Azure. Azure helps in redirecting our Client Applications Service request towards any service that they need like a website that has been hosted inside or outside azure, mobile apps, or coded desktop applications like Excel.

In short, if we are using Microsoft Azure in machine learning, we don't need to worry about the scaling or reliability for the environment and the same for the deployment.

Summary

Here in this article we have discussed about Machine Learning workflow, the keypoints which are highly important to consider when we build a model, the role of Microsoft Azure in machine learning, and the advantages of using Microsoft Azure in machine learning.

Follow my next series of articles which will be on Azure machine learning, Evaluating your Training Model, deploying your Training model as an Azure machine learning solution, and maintaining it. Now, make sure that you have a Microsoft Azure Subscription.