Work's overview

NB :You need to have an Azure subscription

Steps :

1. Create an Azure machine learning workspace
2. Launch studio
3. Create a new pipline
4. Start with choosing the dataset (u can create ur own, or select from open azureML datasets)
5. Finish the pipline
6. Create compute intsance
7. Validate the pipline
8. Submite the pipline
9. Create an inference pipline as real time endpoint
10. Create an azure kubernetes
11. Deploy the pipline
12. Check the registered model
13. Check the endpoint to test new entries

MLOps with azure(some crucial definition)

- We have three authors in Azure machine learning studio : Notebooks, Designer and Automated ML.

- In the Notebook, you can use python SDK

- Python SDK is the Azure Machine learning python used by data scientists and AI developers to build and run machine learning workflows upon the Azure Machine Learning service. You can interact with the service in any Python environment, including Jupyter Notebooks or your favorite Python IDE.

- Azure Machine Learning designer is a drag-and-drop interface used to train and deploy models in Azure Machine Learning.

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- **What is random seed in Azure machine learning?**

The seed is used to initialize the pseudorandom number generator in Python. The random module uses the seed value as a base to generate a random number. if seed value is not present it takes system current time. if you provide same seed value before generating random data it will produce the same data.

- **Who does Azure pipline work ?**

Azure Pipelines automatically builds and tests code projects to make them available to others. It works with just about any language or project type. Azure Pipelines combines continuous integration (CI) and continuous delivery (CD) to test and build your code and ship it to any target.

- **What is an inference piplines in Azure ?**

In Azure Machine Learning an inference pipeline uses the trained model to assign new input data to the pre-defined labels. This generally forms the template for a web service that you can publish for the other services/applications to consume.

- **What is batch inference pipeline?**

Batch inference, or batch scoring, is the process of using machine learning to make predictions on large quantities of existing data.

- **What do we mean by an endpoint ?**

An endpoint is an HTTPS endpoint that clients can call to receive the inferencing (scoring) output of a trained model. It provides: Authentication using "key & token" based auth SSL termination.

- **What is a pipline endpoint**

represents a Pipeline workflow that can be triggered from a unique endpoint URL. Pipeline endpoints can be used to create new versions of a published pipeline while maintaining the same endpoint. They are uniquely named within a workspace.

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