

Sprint-4

Train The Model On IBM

Train The Model on IBM Watson

Date	24 Nov 2022
Team ID	PNT2022TMID34634
Project Name	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation

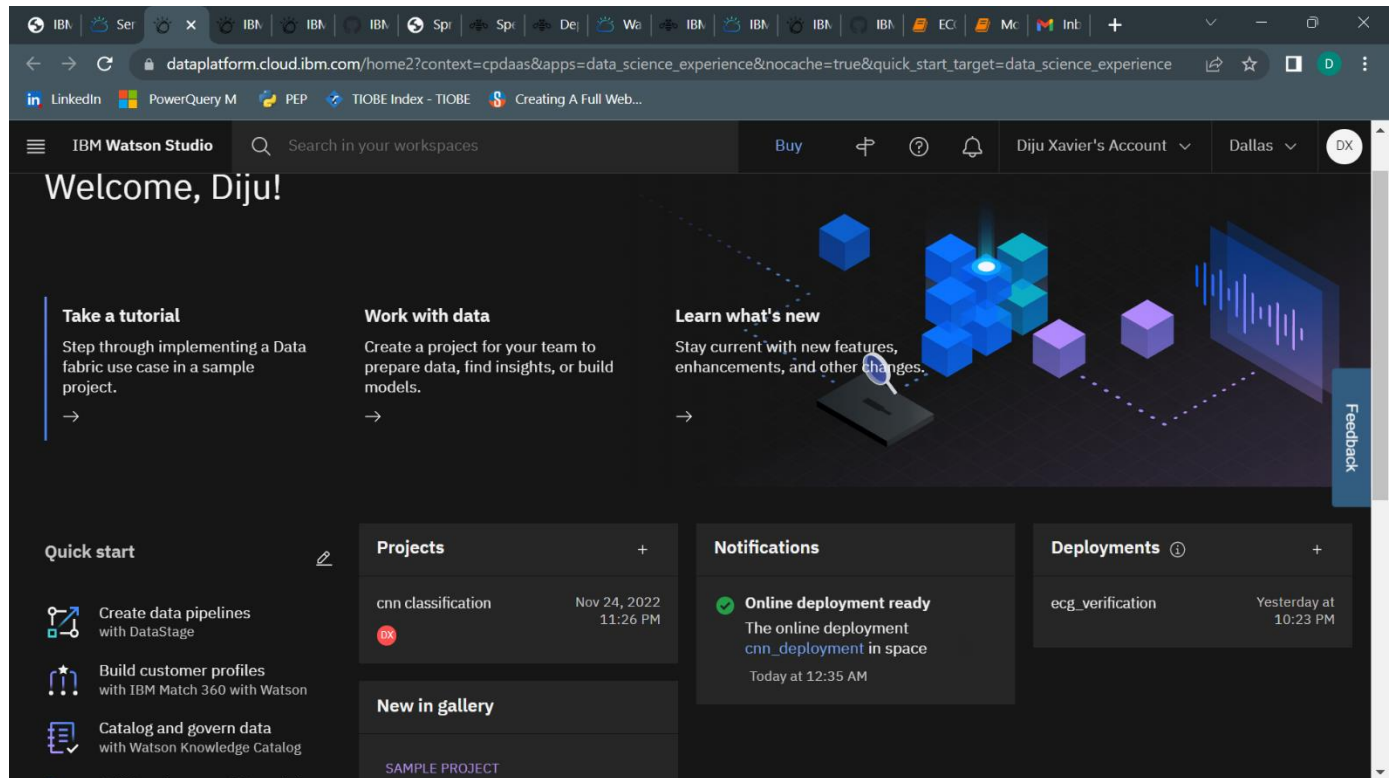
TASK:

Train The Model on IBM Watson:

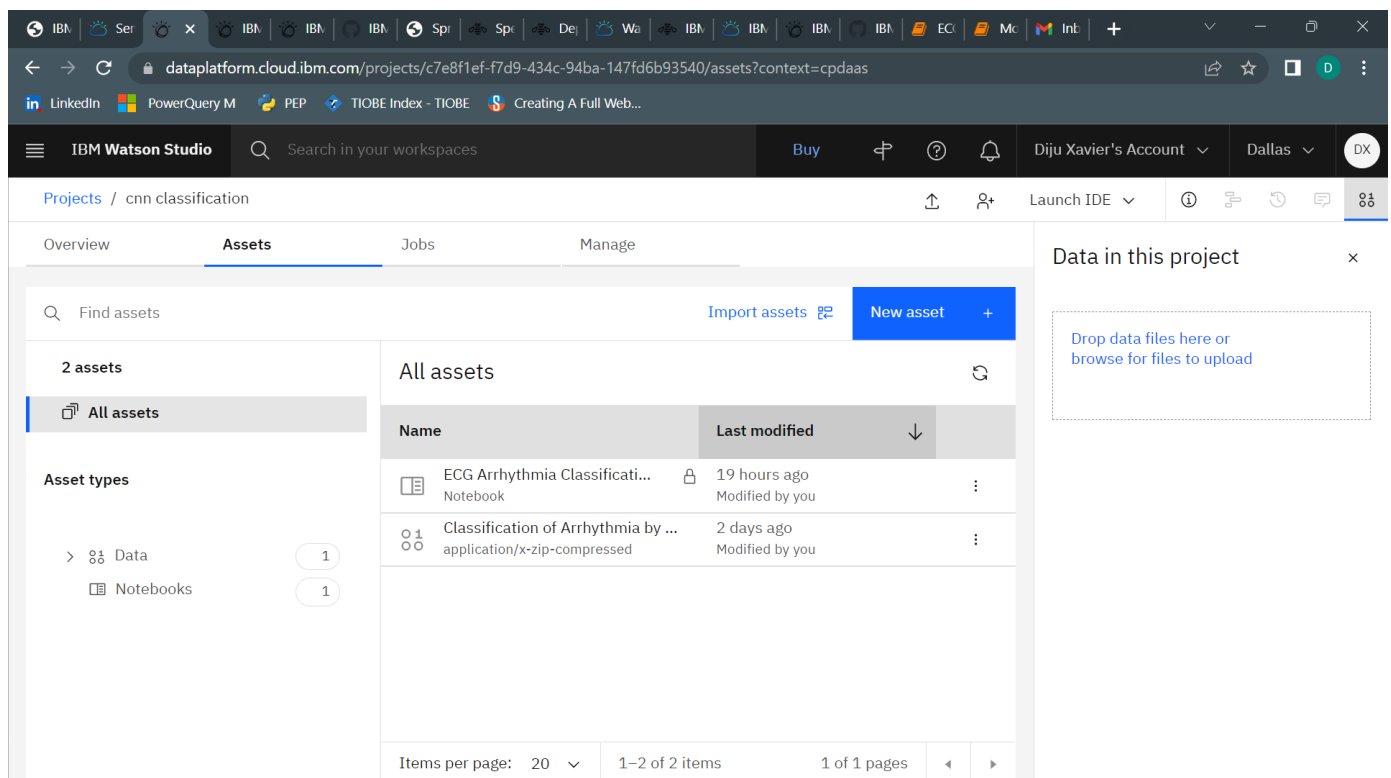
GO ON WATSON SERVICES(SCREEN SHOT):

The screenshot displays the IBM Cloud console interface. At the top, there's a navigation bar with the IBM Cloud logo, a search icon, and links for 'Catalog', 'Manage', and 'Diju Xavier's Account'. Below this, the main content area shows the 'Watson Studio-7u' service, which is 'Active'. A sidebar on the left has a 'Manage' tab selected. The main content area features a large heading 'Watson Studio in Cloud Pak for Data' with a sub-heading 'Data'. Below this, a paragraph describes Watson Studio as a core service in Cloud Pak for Data. A blue button labeled 'Launch in IBM Cloud Pak for Data' is visible. To the right, there's a 3D diagram illustrating the architecture: 'IBM Watson Studio in Cloud Pak for Data' is shown as a cube on top of 'IBM Cloud Pak for Data Unifying platform', which is itself on top of 'IBM Cloud Base cloud infrastructure'. At the bottom, there's a 'Helpful links' section.

GO ON NEW PROJECT (SCREEN SHOT):



GO ON ASSEST(SCREEN SHOT):



JUPYTER NOTEBOOK(SCREEN SHOT):

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← → ↻ dataplatform.cloud.ibm.com/analytics/notebooks/v2/928b5b63-1e6c-4306-823d-ca1ac6f78b3c/view?projectid=c7e8f1ef-f7d9-434c-94ba-147fd6b9...
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IBM Watson Studio | Search in your workspaces | Buy | ? | ? | Diju Xavier's Account | Dallas | DX

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In [4]: pwd

Out[4]: '/home/wsuser/work'

In [5]: !pip install keras
!pip install tensorflow

Requirement already satisfied: keras in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (2.7.0)
Requirement already satisfied: tensorflow in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (2.7.2)
Requirement already satisfied: six>=1.12.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.15.0)
Requirement already satisfied: keras<2.8,>=2.7.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (2.7.0)
Requirement already satisfied: tensorflow-estimator<2.8,>=2.7.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (2.7.0)
Requirement already satisfied: gast<0.5.0,>=0.2.1 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.4.0)
Requirement already satisfied: protobuf>=3.9.2 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (3.19.1)
Requirement already satisfied: numpy>=1.14.5 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.20.3)
Requirement already satisfied: termcolor>=1.1.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.1.0)
Requirement already satisfied: tensorboard>=2.7 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (2.7.0)
Requirement already satisfied: absl-py>=0.4.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.12.0)
Requirement already satisfied: tensorflow-io-gcs-filesystem>=0.21.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.23.1)
Requirement already satisfied: astunparse>=1.6.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.6.3)
Requirement already satisfied: flatbuffers<3.0,>=1.12 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (2.0)
Requirement already satisfied: opt-einsum>=2.3.2 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (3.3.0)
Requirement already satisfied: wrapt>=1.11.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.12.1)
Requirement already satisfied: keras-preprocessing>=1.1.1 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (1.1.2)
Requirement already satisfied: typing-extensions>=3.6.6 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (4.1.1)
Requirement already satisfied: google-pasta>=0.1.1 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.2.0)
Requirement already satisfied: wheel<1.0,>=0.32.0 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from tensorflow) (0.37.0)
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← → ↻ dataplatform.cloud.ibm.com/analytics/notebooks/v2/928b5b63-1e6c-4306-823d-ca1ac6f78b3c/view?projectid=c7e8f1ef-f7d9-434c-94ba-147fd6b9...
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In [24]: ls

data/ ECG-classification-model_new.tgz ECG.h5

In [114]: from ibm_watson_machine_learning import APIClient
wml_credentials = {
    "url": "https://us-south.ml.cloud.ibm.com",
    "apikey": "dbaRZ1eBA_vVlq0ubIczAPD4W2Vtx6JB39Sj3kLeyXFJ"
}
client = APIClient(wml_credentials)

In [115]: client = APIClient(wml_credentials)

In [116]: client

Out[116]: <ibm_watson_machine_learning.client.APIClient at 0x7f01ca0801c0>

In [117]: def guid_from_space_name(client, space_name):
space = client.spaces.get_details()
#print(space)
return(next(item for item in space['resources'] if item['entity']['name'] == space_name)['metadata']['id'])

In [118]: space_uid = guid_from_space_name(client, 'ecg_verification')
print("Space UID = " + space_uid)

Space UID = cd8bd310-bc2b-4310-96fa-4278b2d69f70

In [119]: client.set_default_space(space_uid)
```