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spiral.zip application/x-zip-compressed	2 days ago Modified by you 1

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Data in this project

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```
return (np.array(data), np.array(labels))
```

```
In [34]: import os, types
import pandas as pd
from botocore.client import Config
import ibm_boto3

def __iter__(self): return 0

# @hidden_cell
# The following code accesses a file in your IBM Cloud Object Storage. It includes your credentials.
# You might want to remove those credentials before you share the notebook.
cos_client = ibm_boto3.client(service_name='s3',
                             ibm_api_key_id='c67b1agb5ta5jP4mexzwr_xsFay7ztbTIXDzG4ecDfd',
                             ibm_auth_endpoint='https://iam.cloud.ibm.com/oidc/token',
                             config=Config(signature_version='oauth'),
                             endpoint_url='https://s3.private.us.cloud-object-storage.appdomain.cloud')

bucket = 'parkinson-donotdelete-pr-n4lgylxbeipxyd'
object_key = 'spiral.zip'

streaming_body_1 = cos_client.get_object(Bucket=bucket, Key=object_key)['Body']

# Your data file was loaded into a botocore.response.StreamingBody object.
# Please read the documentation of ibm_boto3 and pandas to learn more about the possibilities to load the data.
# ibm_boto3 documentation: https://ibm.github.io/ibm-cos-sdk-python/
# pandas documentation: http://pandas.pydata.org/

In [35]: from io import BytesIO
import zipfile
unzip=zipfile.ZipFile(BytesIO(streaming_body_1.read()),'r')
file_paths=unzip.namelist()
for path in file_paths:
    unzip.extract(path)

In [36]: pud
```

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```
(X_train, y_train) = load_split(trainingpath)
(X_test, y_test) = load_split(testingpath)

[INFO] loading data...

Label Encoding

In [38]: le = LabelEncoder()
y_train = le.fit_transform(y_train)
y_test = le.transform(y_test)
print(X_train.shape, y_train.shape)

(72, 12996) (72,)

Model Building and Training The Model

In [39]: print("[INFO] training model")
rf = RandomForestClassifier(n_estimators=100)
rf.fit(X_train, y_train)

[INFO] training model

Out[39]: RandomForestClassifier()

In [51]: pickle.dump(rf, open('parkinson.pkl', 'wb'))

In [52]: !tar -zcvf parkinsonmodel.tar.gz parkinson.pkl

parkinson.pkl

Testing The Model

In [40]: !pip install ibm_watson_machine_learning

Requirement already satisfied: ibm_watson_machine_learning in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (1.0.257)
Requirement already satisfied: importlib-metadata in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from ibm_watson_machine_learning) (4.8.2)
Requirement already satisfied: pandas<1.5.0,>=0.24.2 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from ibm_watson_machine_learning) (1.3.4)
Requirement already satisfied: lomond in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from ibm_watson_machine_learning) (0.3.3)
Requirement already satisfied: urllib3 in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from ibm_watson_machine_learning) (1.26.7)
Requirement already satisfied: ibm-cos-sdk==2.11.* in /opt/conda/envs/Python-3.9/lib/python3.9/site-packages (from ibm_watson_machine_learning) (2.11.0)
```