ARTIFICIAL INTELLIGENCE

Natural Disasters Intensity Analysis & Classification using Artificial Intelligence

DATE	16 October 2022
TEAM ID	PNT2022TMID34298
PROJECT NAME	Natural Disasters Intensity Analysis and Classification using Artificial Intelligence

Train Test and Save Model:-

Table of Contents:-

Step 1 – Import the library

```
From sklearn import model_selection, datasets
From sklearn.tree import DecisionTreeClassifier
From sklearn.externals import joblib
Import pickle
```

We have imported model_selection, datasets, joblib, DecisionTreeClassifier and pickel which will be needed for the dataset.

Step 2 – Setting up the Data

We have loaded inbuilt wine dataset and stored data in x and target in y. We have used test_train_split to split the dataset such that 30% of data is for testing the model.

```
Dataset = datasets.load_wine()
```

```
X = dataset.data; y = dataset.target
X_train, X_test, y_train, y_test = model_selection.train_test_split(X, y, test_size=0.3)
```

Master the Art of Classification in Machine Learning to Become a Pro

Step 3 – Training and Saving the Model

We are using DecisionTreeClassifier as a model. We have trained the model by training data. We can save the model by using joblib.dump in which we have passed the parameter as model and the filename.

```
Model = DecisionTreeClassifier()
Model.fit(X_train, y_train)

Filename = "Completed_model.joblib"
Joblib.dump(model, filename)
```

Step 4 – Loading the Saved Model

So here we are loading the saved model by using joblib.load and after loading the model we have used score to get the score of the pretrained saved model.

```
Loaded_model = joblib.load(filename)
```

```
Result = loaded_model.score(X_test, y_test)
Print(result)
```

So the output comes as:

0.9444444444444444