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Assignment on PLA with User Defined Functions

Aim:

Develop a python program for Perceptron Learning Algorithm (PLA) without using Build-in-Function.

Function:

1. activation(learning_rate=0.01, epochs)
2. fit(dataset)
3. predict(data)

Result:

The accuracy of the UDF is 0.8.

Learning Outcome:

- Understanding PLA is a binary linear classifier used for supervised learning of binary classifiers
- implemented the PLAlgo without using build in function in python.
- Applied all ML steps in the dataset
- Analysied the accuracy of UDF and build in function

Inference:

- implementation of the PLA achieved an accuracy of 80% on the test dataset.
- While the built-in function might offer better performance in terms of accuracy, there are advantages to the custom implementation (changes can be main in activation function).