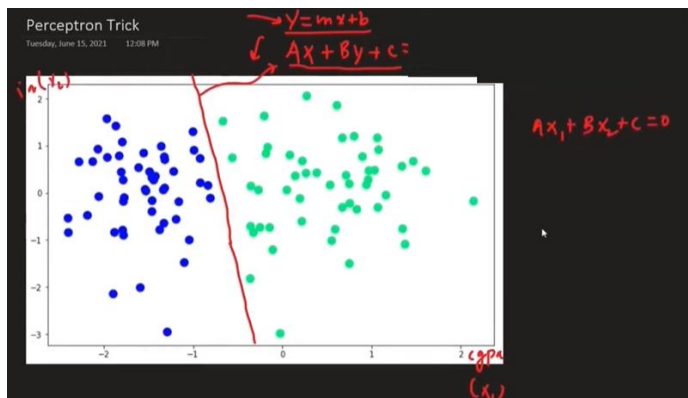


How to Train a Perceptron?

How to train weights & bias?

Jugaadu Tarika → Perceptron Trick

Perceptron Trick



Perceptron Trick mai

Hum random value se start krte hai mtlb

Start mai random Line lete hai

Now Terrible performance aata hai

We now run a loop har loop mai random point lete hai

We will ask that point is Line at correct position or it is not at correct position

If correct hai then No change

If it is not correct

Then we will apply transformation & move that Line.

Jbhtak convergence nahi hota tbhtak Hum move karte rehte

Certainly! Let's break down the perceptron learning algorithm and the "perceptron trick" in the simplest way possible.

1. **Perceptron Basics:**

- A perceptron is a simple type of artificial neuron that takes multiple binary inputs and produces a binary output.
- It has weights associated with each input, which determine the strength of the connection.

2. **Goal of Perceptron Learning:**

- The goal is to find the right set of weights so that the perceptron can correctly classify inputs into two categories (e.g., 0 or 1).

3. **Perceptron Trick Intuition:**

- Imagine you have a perceptron that makes a mistake in its classification.
- The perceptron's output may be wrong because its current weights are not ideal for the given inputs.

4. **Adjusting Weights:**

- The perceptron trick involves adjusting the weights to reduce the error.
- If the perceptron incorrectly predicts a positive outcome when it should be negative, subtract the input values from the weights. If it predicts negative when it should be positive, add the input values to the weights.

5. **Iterative Process:**

- Keep presenting input examples to the perceptron.
- For each mistake, update the weights using the perceptron trick.
- Repeat until the perceptron correctly classifies all examples.

6. **Convergence:**

- With each update, the perceptron gets closer to the correct set of weights.
- The process converges when the perceptron makes fewer or no mistakes, and its weights are adjusted to accurately classify the given inputs.

In essence, the perceptron trick is like a learning process where the perceptron adjusts its weights based on mistakes to improve its ability to correctly classify inputs over time. It's a simple but effective method for training a perceptron to perform binary classification.

Perceptron Trick is Jugaadu tarika not a proper way to train the Model.

Betters & best approach is in next Doc

