I6MI31022

Bhende Dhawal Dhanraj

Descriptive algorithm for NM Lab 6 : ANN

Step1: Start

Step2: Generate the x and y co-ordinates randomly and assigned their corresponding factual label as follows:

Step3:
```
for (int i=0 ; i<=100 ; i++) {
    x = rand() * 10 ;
    y = rand() * 10 ;
    if ( y - 2.x - 1) >=0 , yactual = 1
    else,   yactual = 0
```

Step4: Intialised the weights as wx=-2.0, wy=1.0 and other hyperparameter like iterations

Step5: Run forward propagation on each iteration and predict ypredicted

Step6: Calculated error as (yActual - ypredicted)

Step7: compute gradient and update weights thus performing Back propogation

Step8: ~~Save~~ ~~the~~ continue updating the model until the error minimyes neither

threshhold value

Step 9: Save the weights for further use

Step 10: Take the inputs from the user for new out of sample x and y

Step 11: pass it to trained model and predict the output for the given out of sample input.