**Perceptron training**

**D. Josyula**

1. Use initial weights of 0.5 to train a perceptron with the sigmoid activation function.

Use 0.1 learning rate.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Feature-F1 | 1 | 0 | 1 | 1 | 0 | 1 |
| Feature-F2 | 0 | 1 | 1 | 1 | 0 | 0 |
| Feature-F3 | 0 | 1 | 0 | 1 | 1 | 1 |
| T | 1 | 0 | 1 | 0 | 0 | 1 |

Remember to use an extra feature for bias.

* Show the actual output for each of the sample input?
* What is the batch error?
* What is the accuracy of the perceptron?
* Show weight updates for 1 iteration?
* What is the accuracy after the weight updates?