

Perceptron exercises.

0. This is based on the Python 3 code, 6a-perceptron.py
1. Open Google Colab – colab.research.google.com – and enter the code chunk by chunk into here. If you don't want to use Google services, you can install Jupyter Notebook locally and run from your own machine.
2. Adjust the code in order to get the plot to display correctly.
3. Look at the weights.
 - a. What happens when there's an incorrect prediction?
 - b. How big is the change in the weights?
 - c. What's the bias weight for?
4. Decrease the learning rate by factors of 10 (i.e. add zeros after the decimal point). What happens?
5. Increase the number of iterations. What happens?
6. Adjust the training set to represent OR, XOR, and NAND. Which ones can the system generalise to? Why?