

Report

Part 1

We are asked to plot the training set of the linearly separable training set with different colors and then draw the line of the equation found by the perceptron so here it is:

Part 2

We had to use weka to implement an Artificial Neural Network in order to visualize

Other interesting aspects you could include in your reflection are:

- Explanations as to what are ANNs good for.
 - ANNs are really good for various types of problems.

They are good for classification of data and also for data analysis, they are able to perform very good with large amounts of data, establishing non-linear relations.

Other thing that they can do and is one of their purposes is to generalize, once they are trained, for establish relationships from those inputs and infer new ones.

ANNs work with many types of data, they are not restricted to any distribution.
- Where would you use them?
 - ANNs are widely used for text recognition, voice recognition and image classification
 - There are other uses such as forecasting, even though stock market is a very changing infinitely variable dependent concept, there's research to try to predict how the markets are going to move and when are good opportunities to buy or sell and things like that.
 - There are lots and lots of other applications in medicine, customer relations, etc etc
- Are they worth the effort implementing or not?
 - Yes, they are the state of the art when it comes to AI research, from this is that deep learning appeared and it has been changing our world since. Knowing how it works from the core, helps to have a wider understanding on how everything that is happening around us is been done.
- What kinds of problems do they not solve?
 - When you need a deeper understanding as to why an ANN gives a certain output, then you might have to look for something else, as you can't know what happens in the black box that is the network. If the ANN justs outputs a certain "correct" value, you cannot know how it came up with that value.