This lab is intended to help you further understand how Weka algorithms are put together. This lab will finish the Perceptron classifier that I have started.

Currently, Weka does not have an implementation of the perceptron algorithm. For this lab, I have started an implementation of the perceptron algorithm with a margin, which you will finish. The unfinished Perceptron.java can be downloaded from the course website. Everything that has not been fully implemented has a comment that contains “not yet implemented”.

You should be able to put your new Perceptron.java in the weka/classifiers/functions directory.

Email me your lab with Perceptron.java as one attachment. One other attachment (not four more attachments) should be its performance on the simplified glass dataset, the breast-cancer dataset, the hepatitis dataset, and the sonar dataset. Select a learning rate and a number of iterations that provides (relatively) good performance. Only email me once; points will be deducted for multiple emails.