Homework 3

3) Implement “Adaboost” on the Experian dataset. You may use your logistic regression code to train your weak classifiers. Note that this requires you to change the code slightly to deal with weighted data-cases. Alternatively, you could sample N data-cases from the weights $D_t$ and train LR on those. Note also that boosting works best with many weak classifiers, so you do not need to run LR to convergence (as long as your train error is smaller than 0.5).

4) For a neural network with 2 hidden layers (and an input and an output layer), derive the update rule for the weights connecting the input to the first hidden layer. Derive the result using the chain rule (i.e. you will basically derive back-propagation as in the slides).