

Instructions: For these weekly coding assignments, you will be asked to extend the examples from class to create custom code to answer the questions below. You will create an R code file that uses built-in datasets as the data sources. You will write the code, and an example showing that the code works. Be sure to include any packages in the code that are required for the functions to run (you may want to clear the environment in RStudio before your final check to make sure nothing is missing). The instructor will run the file to ensure that it works with no errors. Clearly label your code so it's clear which question/task is being responded to.

Submission:

A word document with any explanations (if needed), and a clearly labeled R code file.

Tasks/Questions:

1. Update the spam classification example from lecture and apply two different classification models (in place of naïve Bayes), such as logistic regression, SVM, random forest, etc. and compare the results with the original example.
2. Use the feed forward network model from class and update the activation function (sigma) to hyperbolic tangent. Did that do anything to improve the outcome in the final graph?
3. Use one of the neural network packages in the examples from lecture and create either a classification or regression model on a built in dataset (such as mtcars, iris, or any other you prefer). Find appropriate metrics, and visualizations.