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Text

Description automatically generated

In my test for SVM I tested with linear and rbf. The linear kernel had a 10-fold cross validation accuracy of 76.23% while rbf had 67.90%. In my test for MLP I used relu and tanh. The relu activation function had a 10-fold cross validation accuracy of 56.54% while the tanh had 67.90%. The best classification function based on my results on my operating system was the linear kernel. It seems that the rbf kernel and the tanh activation function had the exact same accuracies. The accuracies don’t seem right which may be due to the fact that data set that’s being trained isn’t weighted correctly.

This task showed me that even the best functions to predict data are not that accurate. Even the best classification algorithm according to my data, a linear kernel, is at or near 100%. It is still able to get more than half of the data correctly, but a practical application for this technique where it would be used would need a better accuracy rate for it to do any good.

It also shows that pre-processing is important when running these tests. Weighting the data the same would give us better results as the data being put in to test would be the exact same without pre- existing values.