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Course: 5330-01: Predictive Modelling and Machine Learning

ASSIGNMENT WEEK 09

Fitting models

The data was divided into subsets of 75% training+testing and 25% holdout. For the development of a series of random forest models, the training-testing subset was used. The expand.grid() method has been used and provided each of the hyperparameters' reasonable ranges of values.

State which combination of hyperparameters yielded the best value of accuracy.

Obtained mtry = 1 I.e., 1 combination of hyperparameters yielded the best value of accuracy = 0.8446765.

Using the best model obtained, compute the accuracy of the prediction of Class on the holdout subset.

Using the "Rf_random" model, the accuracy of the prediction of Class on the holdout subset obtained is 88.23529.

Comparing the value from above. with the corresponding value shown in the demo. involving caret and boosted tree modeling approach, identify which method - random forest vs. boosted tree - performed better on the holdout subset.

Comparing the value from 4. with the corresponding value shown in the demo. involving caret and boosted tree modeling approach, *the random forest method* performed better with an accuracy of 88.23529 when compared to *boosted tree method* with an accuracy of 86.27451.