PS10_Wardwell

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5 Tribes of Machine Learning Comparison

	penalty	.estimate	alg	cost_complexity	tree_depth	min_n	hidden_units	neighbors	cost	rbf_sigma
1	0.00	0.85	logit							
2		0.87	decision_tree	0.00	15.00	10.00				
3	1.00	0.85	nnet				6			
4		0.84	knn					30		
5		0.86	svm						1.00	0.50

How does each algorithm's out-of-sample performance compare?

Each algorithm has a relatively similar accuracy, ranging from 84% for the knn model to 87% for the decision tree model. The accuracy of the decision tree model is the highest for this dataset, meaning it correctly classified the most instances out of all instances in the test dataset. Because the accuracy range of each model is so narrow in this scenario, there are not significant differences in each model as a predictor. In this case, I would probably not utilize SVM or KNN again unless I had additional computing power, as they seemed to take extra time to run.