

CSC 421 Assignment 1

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Results of KNN

After running the KNN algorithm on the cifar10 dataset I was able to determine that most efficient value for k was its last run when k was 12 which resulted in a in a accuracy of 18.2%

Cross validation

value of k at 3 is 9.7 %

value of k at 5 is 11.6 %

value of k at 7 is 13.4 %

value of k at 12 is 14.0 %

The most effiecent value for k is 12 with a accuracy of 18.2 %

Results of K-means

The final result of the k-means algorithm using cross validation with the number of cluster. I was able to determine that the most effective value of k was when k = 12 with a accuracy of 10.0%

k 3 has a accuracy of 13.3 %

k 6 has a accuracy of 23.200000000000003 %

k 9 has a accuracy of 22.400000000000002 %

k 12 has a accuracy of 28.999999999999996 %

Best value of k was 12 with a accuracy of 10.0 %