

project2/writeup.md

project 2 writeup

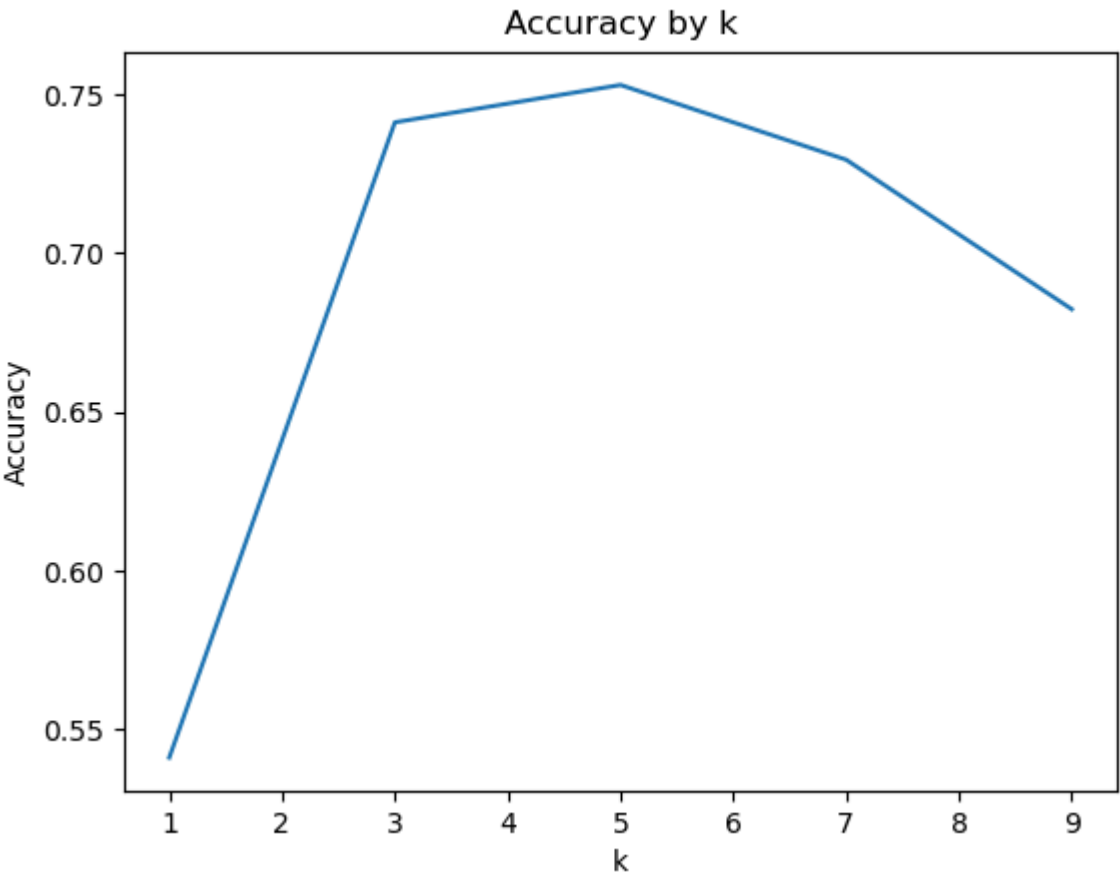
problem description

this project is about creating a QC testing algortim using knn classification and kfold cross validation to determin optimal k value and apply this to the testing dataset for capacitors.

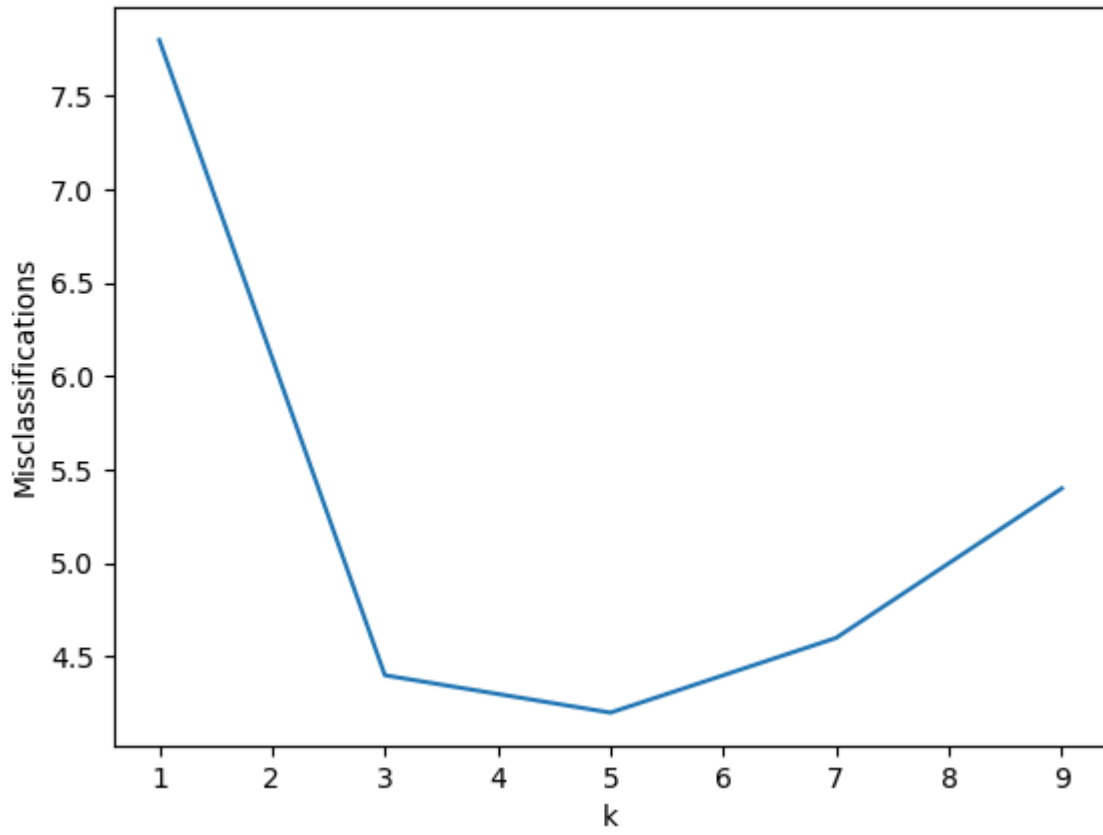
procedure decription

- import training data
- use old knn function
- define folds and knns
- for each knn
 - for each fold
 - split data and train
 - test and record accuracy
 - record average accuracy
- find best knn
- import testing data
- use best knn to predict
- export predictions

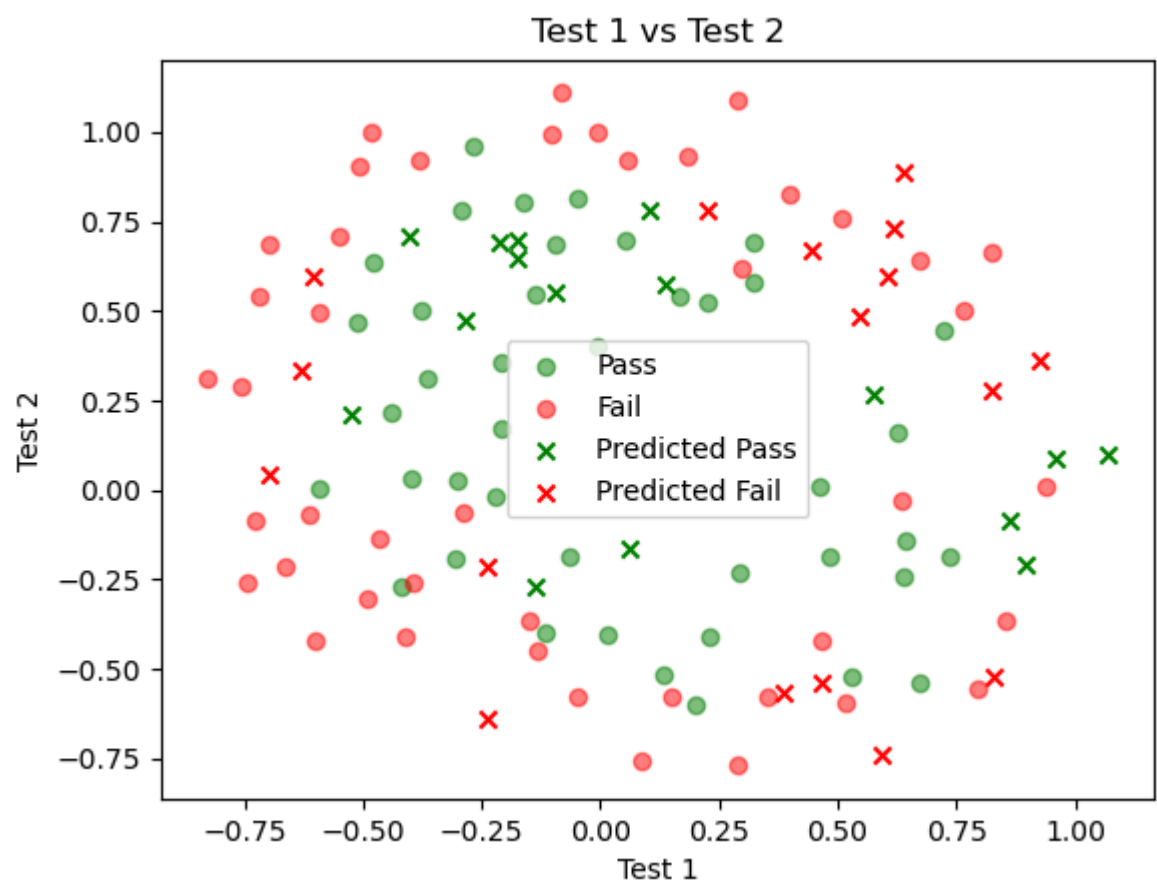
graphs



Misclassifications by k



final results



| | Predicted 0 | | Predicted 1 | |
|----------|-------------|--|-------------|--|
| Actual 0 | 10 | | 6 | |
| Actual 1 | 7 | | 10 | |

accuracy: 0.6061, precision: 0.6250, recall: 0.5882, f1: 0.6061