CCPS 884
Data Mining Project
Andy Lee

## **TABLE OF CONTENTS**

- 1. Clustering
- 2. MLP
- 3. KNN multi-label
- 4. KNN one label vs rest
- 5. KNN probability, classification threshold
- 6. SVC
- 7. Linear Regression
- 8. Logistic Regression

## CCPS 844 Data Mining (Project) - Andy Lee

- 1. Select a dataset or datasets of your choice. Here are few links that can be helpful for you to select a dataset.
- 2. Once you have selected a dataset or datasets of your choice. After reading the datasets, check the type of different attributes/columns/features to ensure that you have appropriate types (categorical/numerical) for your columns.
- 3. Use visualization to understand your data
- 4. For exploratory analysis, apply clustering algorithms (K means/ Hierarchical clustering) to improve your understanding
- 5. Apply the concepts learned in Module 9 to select the features
- 6. Try to reduce the dimensions of the data if possible (Apply a dimensionality reduction algorithm). For step 7 use both the original data and the data that you get after applying the Step 6.
- 7. Divide your data in Train and Test or choose cross validation to evaluate the selected model
  - · Apply all learned classification algorithms to choose which one performs best
  - Apply all learned regression algorithms to choose which one performs best

Please note that you need to get your data in appropriate format before applying a classification or regression algorithm. One of the differences is: class variable for a regression model is numeric whereas it is categorical for classification.