Week 5 – Algorithm

Select one or more choices from the list of common Machine Learning Algorithms, do some investigations and write me a short summary. I am looking for the following:

•Is it Supervised/Unsupervised/Reinforcement learning?
•What does the algorithm do?
•In which situations will it be most useful?
•(Optional) Can you find any examples of where this algorithm has been used?

ML Algorithm : Linear Regression

- This algorithm is a supervised learning.
- By plotting a linear regression model, we are trying to discover the relationship between two variables. One variable is dependent variable and the other one is the explanatory variable.
- It is useful when there is a linear regression between input and output variable which helps us to predict the output when we know the input variable.
- It can be used to predict human behaviour in buying certain products with the total of daily sales. We can maximise our sales once we discover the right pattern of the human behaviour.

ML Algorithm : Logistic Regression

- This algorithm is a supervised learning.
- The same thing as linear regression but logistic regression has value restrictions which within a range of y values.
- It is good for classification problem.
- For example predicting the time taken by athletes to run 100m by years. It is impossible for the athletes to run 100m below 0 seconds.

ML Algorithm : Support Vector Machine (SVM)

- This algorithm is a supervised learning. It is good for classification problem.
- To separate data into classes, SVM need to find the best lines or
- The same thing as linear regression but logistic regression has value restrictions which within a range of y values.
- For example predicting the time taken by athletes to run 100m by years. It is impossible for the athletes to run 100m below 0 seconds.