



DSS 740: Analytics with Machine Learning

Homework 1

1. Cite a few examples where you have seen ML algorithms, such as Supervised and Unsupervised, being used.
2. Many firms are leveraging ML to improve their business performance. How can firms differentiate themselves from the competition, while bringing cutting edge solutions to the market?
3. What is the importance of data quality? Cite a few examples where data issues were discovered after an AI-based solution was launched.
4. Python exercises on the libraries:
 - a. Create a Dataframe consisting of 100 rows and 10 columns.
 - b. Calculate the descriptive statistics of the data set.
5. Visualize and describe the Housing data set:
 - a. Read the Housing dataset.
 - b. Visualize, describe, and summarize the dataset.
 - c. Draw a histogram to show the frequency of values.
 - d. Draw a scatterplot of total rooms and median house values.
 - e. What are your initial insights on the dataset based on the graphs and statistics?