

CSC570E Machine Learning

Homework 1

Exploring data in R

(due by Wednesday June 26th)

1. Load Auto.csv dataset.
2. How many observation and variables does the dataset contain?
3. What is the range of mpg?
4. Draw a histogram for mpg. What is the range of the tallest bar? How many cars fall within that range?
5. What is the make of the heaviest car (with the maximum weight)?
6. What is the most frequent car year and how many cars of this year are there?
7. How many outliers are there for the attribute horsepower?
8. Draw a boxplot for acceleration. Does it show any outliers?

Your submission must consist of two text files:

- a text file, description.txt, no longer than a page: Your answers to Questions 2-8.
- a script with history of your session. Save the session into script.Rhistory using:
> savehistory("script.Rhistory")

Alternatively, in RStudio, you can save your history in the history window in the upper right corner.

It is important that your script is clean, i.e., it does not contain any “drafts” or “debugging”. You can manually edit the script in order to remove any unnecessary commands, such as trials and errors. The order of the commands must follow the order stated above (1:12).

Let me know if you have questions.