

CCE: Pattern Recognition Assigned: Tue, Mar. 30, 2021 Due: Tue, Apr. 06, 2021

Sheet #0

Objectives

This assignment aims to make students familiar with python programming and to begin the exploration process of a dataset.

Download and Read Data

In your python script use the "datasets.load" to load the iris dataset.

Visualization

- 1. Plot the histogram for each class.
- 2. Use scatter plot to plot every 2 attributes together.
- 3. Use 3D scatter plot to plot every 3 attributes together.
- 4. Show the correlation matrix between the attributes and comment on it.
- 5. Use boxplots to show the quartiles and the median of the sepal length, sepal width, petal length and petal width for each kind of flowers.

Notes

- 1. You should deliver a report which contains:
 - Explanation of the iris dataset attributes and details in a tabular form.
 - The visualization and with comments on them if available.
- 2. You should write your code in python and you may use scikit-learn, numpy, scipy or pyplot whenever needed.
- 3. It is preferred to use Google Colab in this sheet and any coding assignment.
- 4. Any further effort (more visualizations, analysis, etc.) will be appreciated.
- 5. Marks are put on effort and trials so copied assignments will be penalized, so not delivering the assignment would be much better.