Data Visualization

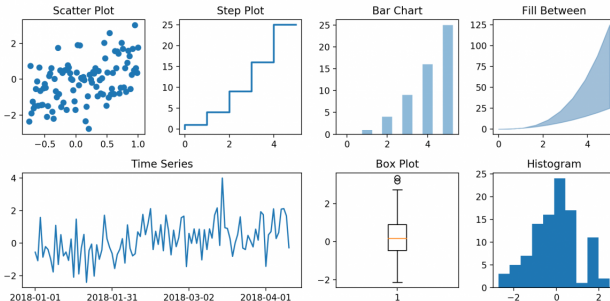## CS253 (Software Development and Operations)

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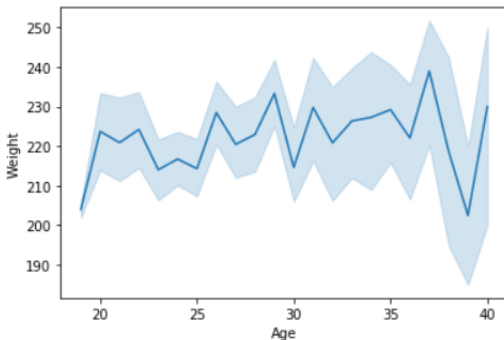Email: nksingh@cse.iitk.ac.in

March 25, 2022

Introduction

- Matplotlib - 2D plots of arrays
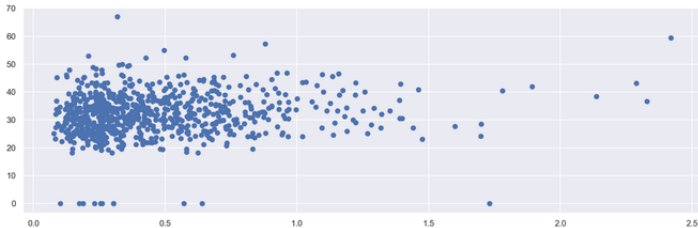
- Seaborn - Addon to matplotlib

Line Plot

- Draw a relationship between x and y with the possibility of several semantic groupings.
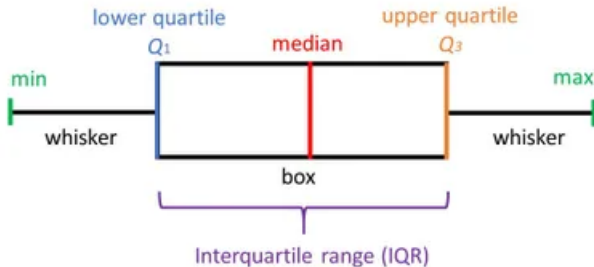- Plot a continuous function

Scatter Plot

- Bivariate plot to see to see if two variables are correlated.

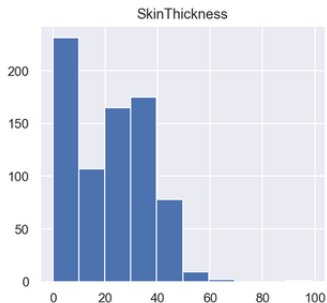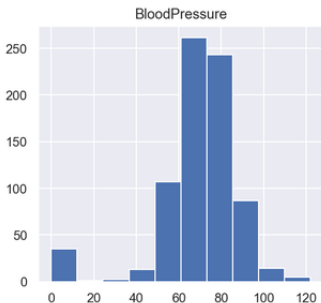- Plots the median values, outliers etc.

Box Plot

- Measuring the data distribution.

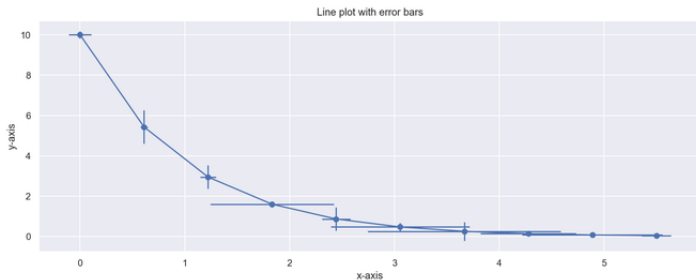- Plots the median values, outliers and the quartiles.

Histogram

- Displays counts of data

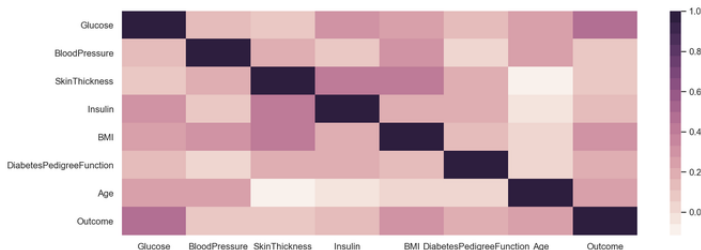- Tell us how close a data distribution is to a normal curve.

Error bars

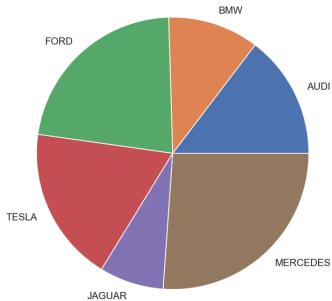- Represents the uncertainty or error of the corresponding coordinate of the point.

Line plot with error bars

Correlation Plot

- Multi-variate analysis of relationship among variables.

- Range = [-1,1].

Pie Chart

- Univariate analysis to show percentage or proportional data.

Thanks for your attention!!

Code: https://github.com/ciniks117/CS253_TA

References: https://geeksforgeeks.org
https://docs.python.org