

# scatter and box plot using matplotlib

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## Scatter plot

A scatter plot uses dots to represent values for two different numeric variables. The position of each dot on the horizontal and vertical axis indicates values for an individual data point. Scatter plots are used to observe relationships between variables.

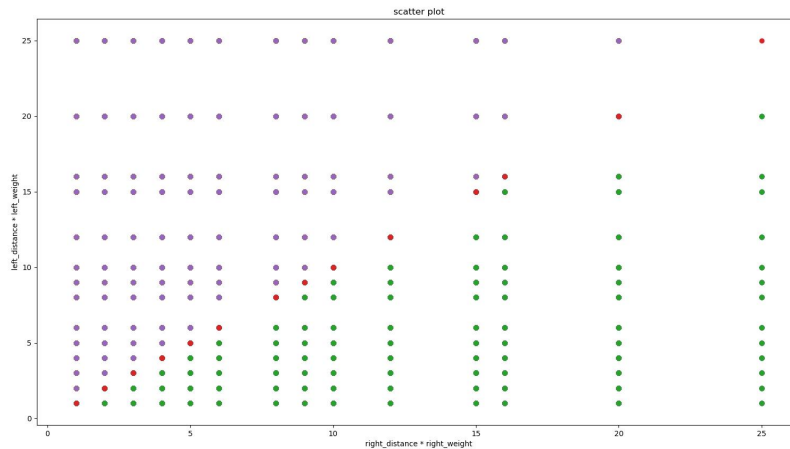


Figure 1: scatter plot

The example scatter plot above shows the  $left\_weight * left\_distance$  and  $right\_weight * right\_distance$  for a sample data set. Each point's horizontal position indicates  $left\_weight * left\_distance$  and the vertical position indicates for right.

## Box plot

For some distribution/datasets, you will find that you need more information than the measures of central tendency (median, mean and mode).

If you see class B or Balanced data realise that all the box plot are normal and all

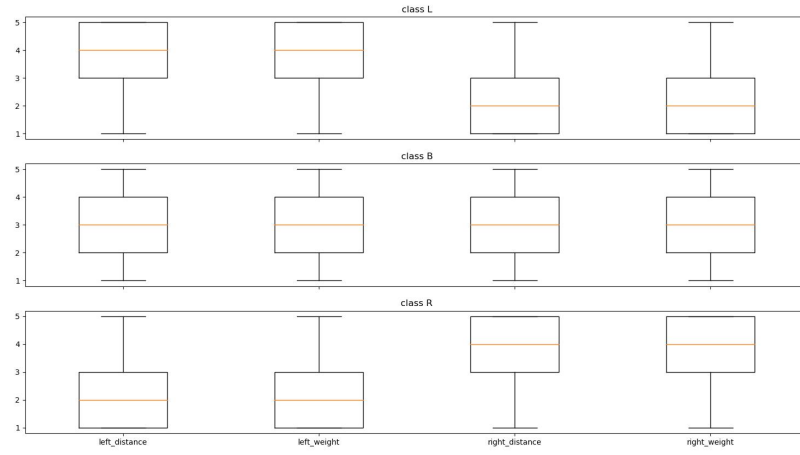


Figure 2: box plot

data are around the median. In class L you can see the most data of left distance (weight) are in  $[3, 5]$  interval. and the most data of right distance(weight) are in  $[1, 3]$  interval. Class R is vice versa of class L.