Machine Learning Course | Arabic

Data Preprocessing

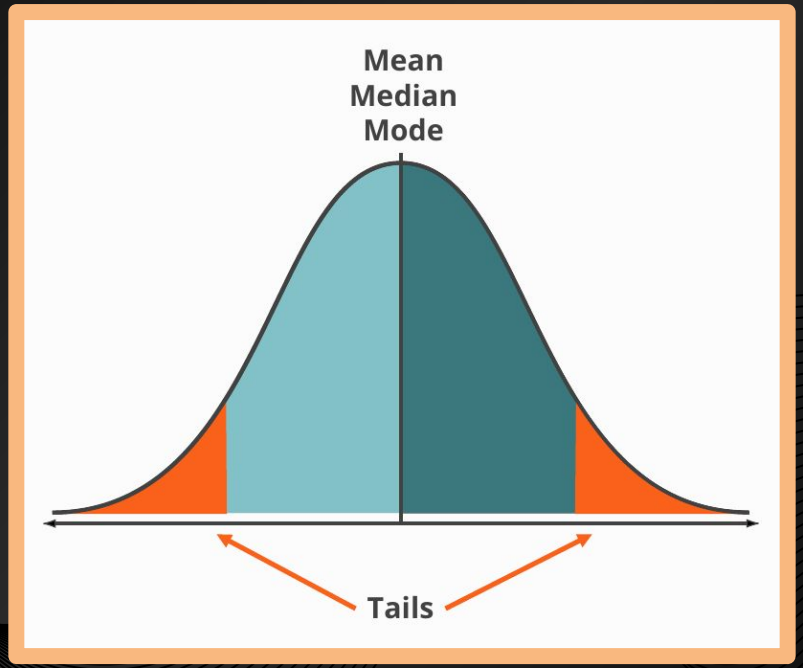
Level - 01

Link to Lecture on Youtube

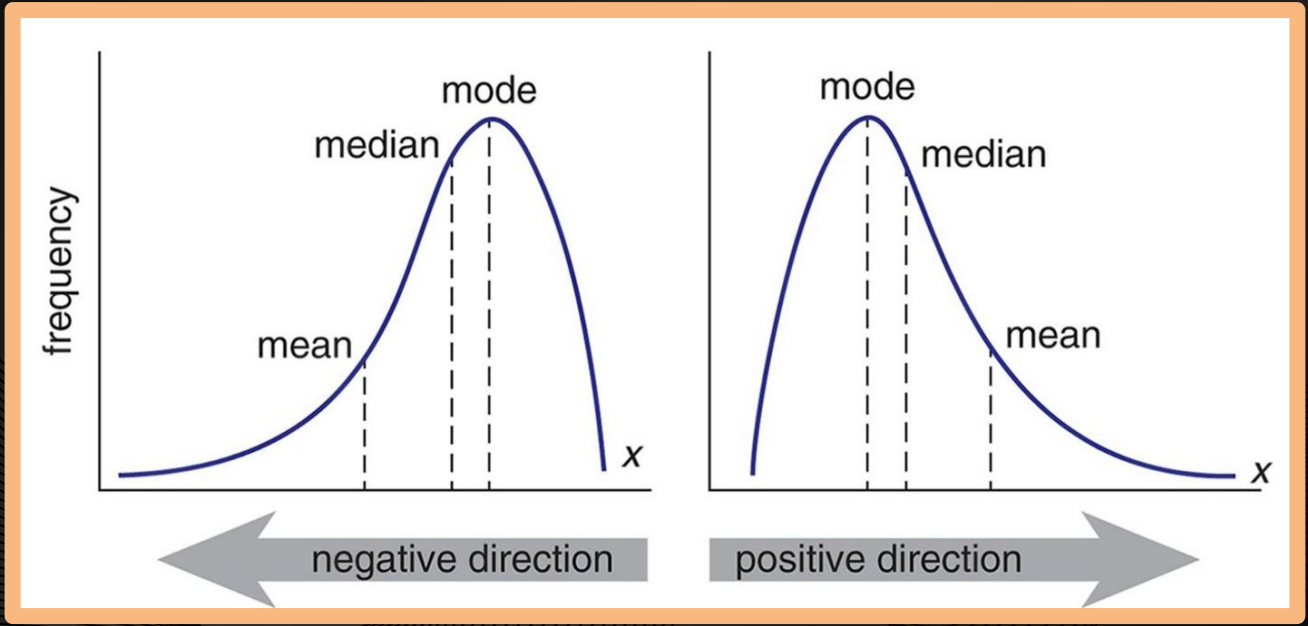
06

Skewness, Kurtosis

Normal Distribution



Skewness



Skewness tells us the direction of outliers.

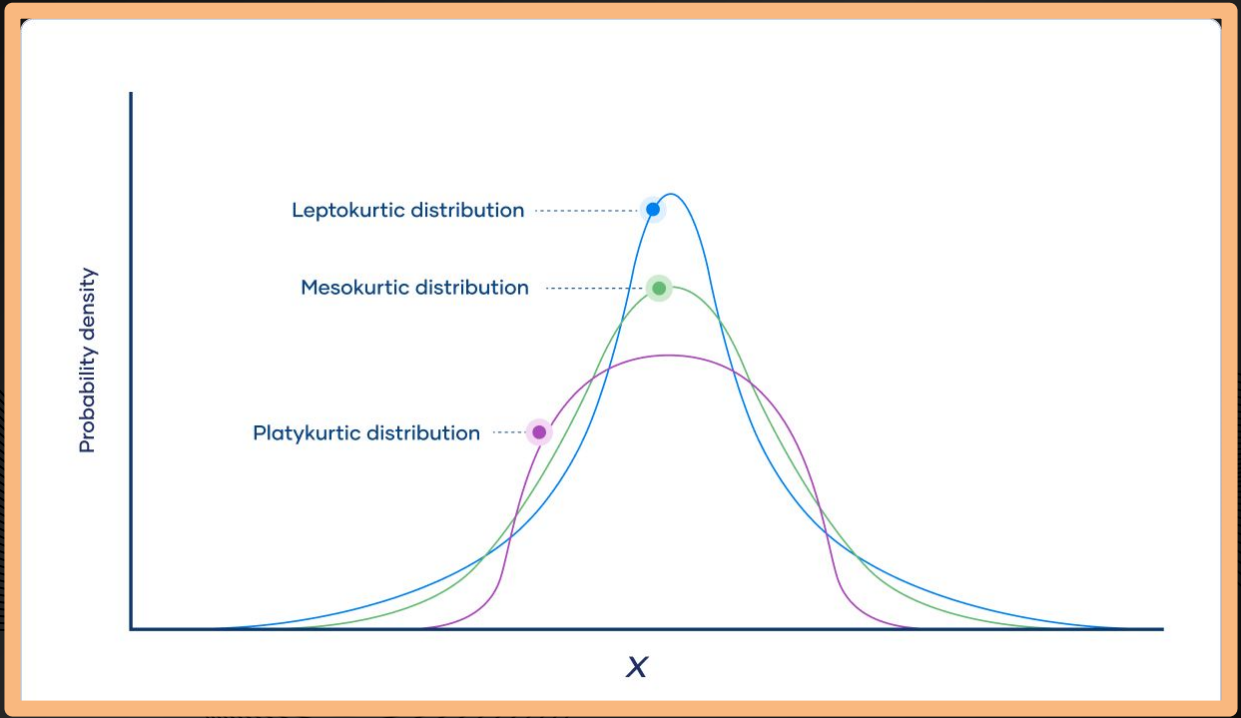
Skewness

Skewness measures the degree of distortion of symmetric distribution.

$$\text{Pearson's second coefficient} = \frac{3\,(\text{Mean} - \text{Median})}{\text{Standard Deviation}}$$

- If the skewness => -0.5 to 0.5 => no skew
- If the skewness => -1 to -0.5 => negative skew
- If the skewness => 0.5 to 1 => positive skew

Kurtosis



Kurtosis

Kurtosis measures how heavily the tails of a distribution.

Kurtosis identifies whether the **tails** of a given distribution **contain extreme values.**

There are three types of kurtosis:

- **Mesokurtic**
- **Platykurtic**
- **Leptokurtic**

Kurtosis

	Mesokurtic	Platykurtic	Leptokurtic
Tailedness	Medium-tailed	Thin-tailed	Fat-tailed
Outlier frequency	Medium	Low	High
Kurtosis	Moderate (3)	Low (< 3)	High (> 3)
Excess kurtosis	0	Negative	Positive
Example distribution	Normal	Uniform	Laplace

Kurtosis Vs Skewness

Skewness tells you about the **direction** of the outliers.

Kurtosis tells you the **amount** of outliers.

How are they used in the stock market?

On board.

Thank You!

Do you have any questions?

Write them in the comments

hozaifazaki99@gmail.com