

## Correlation coefficient

feature selection

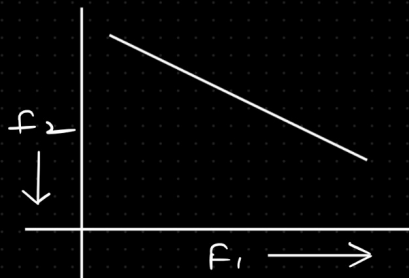
Range  $\rightarrow -1$  to  $+1$



Model Prediction

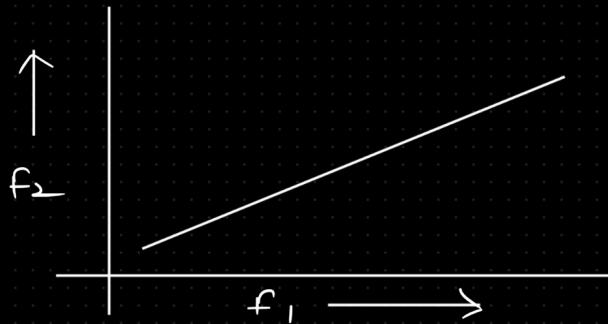
## -ve correlation coefficient

$f_1 \uparrow$   $f_2 \downarrow$



## +ve correlation coefficient

$f_1 \uparrow$   $f_2 \uparrow$



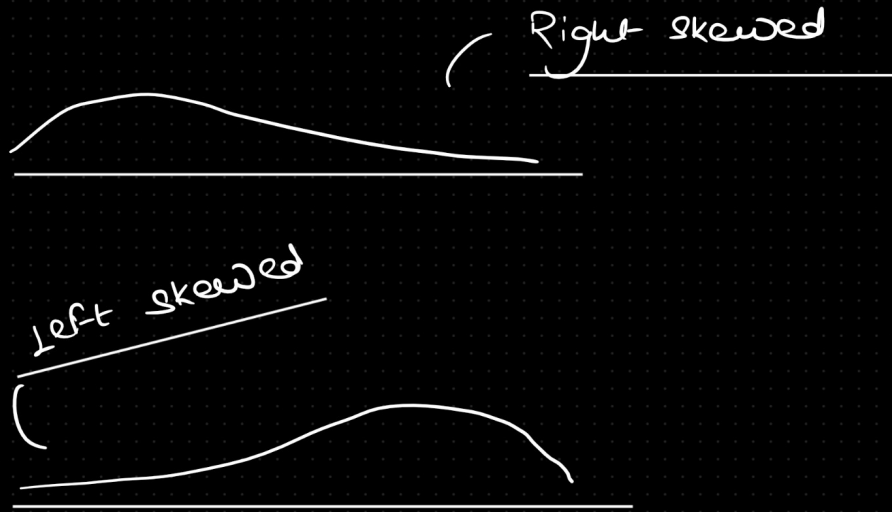
symmetric  
distribution

Gaussian Distribution  
or  
Normal Distribution

Standard Normal Distribution

$$\mu = 0, \sigma = 1$$

Non-Symmetric Distribution



Outliers

Bengaluru

freelancers

Data Scientist

$n=5$

50,000	80,000	1,00,000	2,00,000	1 cr
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Outlier

Mean  $\rightarrow \frac{50,000 + 80,000 + 1 \text{ Lakh} + 2 \text{ Lakh} + 1 \text{ cr}}{5}$

Shifts alot

Median  $\rightarrow$  ① Sort (ascending)  
② Middle  $\rightarrow$  1 Lakh

Median is more robust to outliers

