Dimensionality Reduction

$\begin{cases} 2\text{-}D, \ 3\text{-}D : \text{Scatter plot} \\ \checkmark \ 4\text{-}D, 5\text{-}D, 6\text{-}D : \text{pair plot} \end{cases}$ $\boxed{n_{C_L}}$

10-D, 100-D, 1000-D

784-dim- data

$n\text{-}D \longrightarrow 2\text{-}D \text{ or } 3\text{-}D$

$\checkmark$ PCA & t-SNE $\checkmark$

Dimensionality reduction helps in visualizing dataset with 10D or more dimensions.

Dimensionality reduction is the process by which higher dimensional data is transformed into lower dimensional data