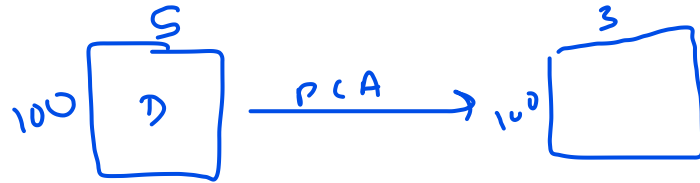


Dimensionality Reduction - reducing dimensionality of data from higher dimensions to lower dimensions.

In case of tabular data



Use of dimensionality reduction

- optimized data storage - IoT data, telemetry data
- High dimensional data visualization - it can help in reducing dimensionality without losing information
- Feature Extraction for supervised ML - Handle Multicollinearity
- Factor Analysis - mostly used in economics

Algorithms for dimensionality reduction

Unsupervised ML - PCA, SVD (Single Value Decomposition)

Supervised PCA - LDA (Linear Discriminant Analysis)

Deep Learning (Unsupervised) - Autoencoders







