Documentations

Prosenjit Mondol

August 7, 2025

1   Data Preprocessing

- **Sampling**
  Sampling techniques are used to select a representative subset of data from a large population to reduce the computational complexity and improve the efficiency of the analysis.

- **Transformation**
  Transformation techniques involve manipulating raw data to create a single input, such as scaling, normalization, or encoding categorical data.

- **Denoising**
  Denoising techniques remove unwanted noise from the data that can lead to inaccurate results.

- **Imputation**
  Imputation techniques are used to fill in missing values in the data using statistical methods.

- **Feature extraction**
  Feature extraction techniques help to identify and extract relevant features from the data that are significant in a particular context.

- **Normalization**
  Normalization techniques are used to organize data for more efficient access and processing.

2   Math Example

Here is an example of an equation:

$$E = mc^2$$