

Day 1: - Feature Selection :-

To train a model,

Feature Selection is the process of reducing the input variable to your model by using only relevant data and getting rid of noise in data.

using FS, we can optimize the model.

Methods: -

Supervised

← Intrinsic
wrapper method
Filter method.

* used output label class.

* Wrapper Method :-

split our data into subsets and train a model using this.

Based on the output of the model, we add and subtract features and train the model again. [Eg: Genetic Algorithms, Recursive Feature Elimination]

* Filter Method :-

Features are dropped based on relation to the output, or how they are correlating to the output. [Eg: Pearson's coefficient, Chi squared, ANOVA coefficient] (Feature selection Algo)

* Intrinsic :-

combines Filter + wrapper to create best subset. The model will train and check different subsets and select the best among them. [Eg: Lasso Regularisation, Decision Trees]