Quality Metrices

Measuring the Quality of our Predictions

R Squared

COEFFICIENT OF DETERMINATION

In econometrics, it can be explained as the percentage of Variance explained by the model as compared to the Mean

sklearn.metrics.r2_score $(-\infty, 1]$

Mean Absolute Error

It has the same unit of measurement as the original series.

sklearn.metrics.mean_absolute_error $[0, \infty)$

Median Absolute Error

Particularly interesting metric because it is robust to outliers

sklearn.metrics.median_absolute_error

$[0, \infty)$

Mean Squared Error

MOST COMMONLY USED

It gives higher penalty to bigger mistakes & vice versa

sklearn.metrics.mean_squared_error

$[0, \infty)$

Mean Squared Logarithmic Error

Practically the same as Mean Squared Error, except for the fact that we take logarithm of the original series. As a result, we give attention to small mistakes as well.

USEFUL WHEN DATA HAS EXPONENTIAL TRENDS

sklearn.metrics.mean_squared_log_error $[0, \infty)$

Mean Absolute Percentage Error

Same as Mean Absolute Error, but in Percentage.

Convenient to explain the quality of the model

NOT IMPLEMENTED IN SKLEARN

$[0, \infty)$