



## Regression Metrics

Overview

## MSE, RMSE and MAE

MSE, RMSE, MAE is inversely proportional to model performance. We want to minimize the value of MSE, RMSE, MAE because closer the value to 0 greater is the performance of the model, since the loss is minimum near zero.

MSE, RMSE, MAE: are the measure of the distance between the true label and predicted label, lower the distance (value) better the model.

$$ext{MSE}(y, \hat{y}) = rac{1}{n_{ ext{samples}}} \sum_{i=0}^{n_{ ext{samples}}-1} (y_i - \hat{y}_i)^2.$$

RMSE= 
$$\sqrt{MSE}$$

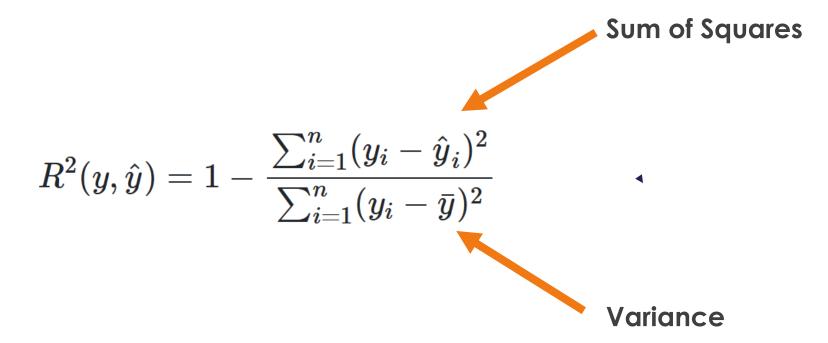
$$ext{MAE}(y, \hat{y}) = rac{1}{n_{ ext{samples}}} \sum_{i=0}^{n_{ ext{samples}}-1} \lvert y_i - \hat{y}_i 
vert.$$



## R-squared

R2 score is directly proportional to model performance. We want to increase the value of r2 since closer the value to 1 greater is the model. R2 score: is the measure of variability of the dataset.

If r2 score of the model is 0.4 it means that the model explains 40% of the variability present in the dataset and the rest it cannot. And if r2 score is 1 that means the model is a perfect model because it explains 100% of the variability present in the dataset.







## THANK YOU

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