y_i: Actual value of the i-th observation.

$\hat{y}_i$: Predicted value of the i-th observation.

n: Total number of observations.

$$\text{MSE} = \frac{1}{n}\sum_{i=1}^{n}(y_i - \hat{y}_i)^2$$

$$\text{MAE} = \frac{1}{n}\sum_{i=1}^{n}|y_i - \hat{y}_i|$$

$$R^2 = 1 - \frac{\sum_{i=1}^{n}(y_i - \hat{y}_i)^2}{\sum_{i=1}^{n}(y_i - \bar{y})^2}$$

MSE penalizes larger errors more than smaller ones because of the squaring.

MAE provides a more interpretable metric in the same units as the target variable.

R^2 measures the proportion of the variance in the dependent variable that is predictable from the independent variables.