

Evaluation

January 14, 2025

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[ ]: '''  
    R-Squared -->  
  
    R-Squared is a statistical metric that measures the proportion of variance  
    ↪ in the dependent variable  
    (target) that is explained by the independent variable(s) (features) in the  
    ↪ regression model.  
  
    It is also known as the coefficient of determination.  
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[ ]: '''  
    Interpretation -->  
  
     $R^2 = 1$ : Perfect fit. The model explains all the variance in the target  
    ↪ variable.  
     $R^2 = 0$ : The model explains none of the variance; it performs no better  
    ↪ than a simple mean of the target variable.  
     $R^2 < 0$ : The model performs worse than the baseline (mean of the target).  
    '''
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[ ]: '''  
    When to Use R-Square -->  
  
    You are working with regression models.  
    You want to understand the proportion of variance explained by the features.  
    Comparing different models with the same data.  
  
    Avoid relying solely on R-Square -->  
  
    The model is non-linear or heavily complex.  
    Predictive accuracy is the primary concern.  
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