

Package: PerMat (via r-universe)

September 13, 2024

Type Package

Title Performance Metrics in Predictive Modeling

Version 0.1.0

Maintainer Pankaj Das <pankaj.das2@icar.gov.in>

Description Performance metric provides different performance measures like mean squared error, root mean square error, mean absolute deviation, mean absolute percentage error etc. of a fitted model. These can provide a way for forecasters to quantitatively compare the performance of competing models. For method details see (i) Pankaj Das (2020) <<http://krishi.icar.gov.in/jspui/handle/123456789/44138>>.

License MIT + file LICENSE

Encoding UTF-8

RoxygenNote 7.2.3

Suggests knitr, rmarkdown, testthat (>= 3.0.0)

Config/testthat/edition 3

VignetteBuilder knitr

NeedsCompilation no

Author Pankaj Das [aut, cre] (<<https://orcid.org/0000-0003-1672-2502>>)

Repository CRAN

Date/Publication 2024-06-14 15:20:11 UTC

Contents

accuracy	2
CVRMSE	2
MAE	3
MAPE	3
ME	4
NRMSE	5
R2	5
RMSE	6

Index

7

accuracy	<i>Accuracy of Model</i>
----------	--------------------------

Description

Accuracy of Model

Usage

```
accuracy(actual, predicted)
```

Arguments

actual	Actual value of the target variable
predicted	Predicted/forecasted value of the target variable

Value

Accuracy of the fitted model

Examples

```
actual <- c(100, 150, 200, 250, 300, 350, 400, 450, 500, 550)
predicted <- c(95, 148, 210, 245, 290, 360, 395, 440, 510, 540)
accuracy(actual, predicted)
```

CVRMSE	<i>Coefficient of Variation of Root Mean Squared Error</i>
--------	--

Description

Coefficient of Variation of Root Mean Squared Error

Usage

```
CVRMSE(actual, predicted)
```

Arguments

actual	Actual value of the target variable
predicted	Predicted/forecasted value of the target variable

Value

CVRMSE of the fitted model

Examples

```
actual <- c(100, 150, 200, 250, 300, 350, 400, 450, 500, 550)
predicted <- c(95, 148, 210, 245, 290, 360, 395, 440, 510, 540)
CVRMSE(actual, predicted)
```

MAE	<i>Mean Absolute Error</i>
-----	----------------------------

Description

Mean Absolute Error

Usage

```
MAE(actual, predicted)
```

Arguments

actual	Actual value of the target variable
predicted	Predicted/forecasted value of the target variable

Value

MAE of the fitted model

Examples

```
actual <- c(100, 150, 200, 250, 300, 350, 400, 450, 500, 550)
predicted <- c(95, 148, 210, 245, 290, 360, 395, 440, 510, 540)
MAE(actual, predicted)
```

MAPE	<i>Mean Absolute Percentage Error</i>
------	---------------------------------------

Description

Mean Absolute Percentage Error

Usage

```
MAPE(actual, predicted)
```

Arguments

actual	Actual value of the target variable
predicted	Predicted value of the target variable

Value

MAPE of the fitted model

Examples

```
actual <- c(100, 150, 200, 250, 300, 350, 400, 450, 500, 550)
predicted <- c(95, 148, 210, 245, 290, 360, 395, 440, 510, 540)
MAPE(actual, predicted)
```

ME

Maximum Error

Description

Maximum Error

Usage

```
ME(actual, predicted)
```

Arguments

actual	Actual value of the target variable
predicted	Predicted value of the target variable

Value

ME of the fitted model

Examples

```
actual <- c(100, 150, 200, 250, 300, 350, 400, 450, 500, 550)
predicted <- c(95, 148, 210, 245, 290, 360, 395, 440, 510, 540)
ME(actual, predicted)
```

NRMSE	<i>Normalised Root Mean Squared Error</i>
-------	---

Description

Normalised Root Mean Squared Error

Usage

```
NRMSE(actual, predicted)
```

Arguments

actual	Actual value of the target variable
predicted	Predicted value of the target variable

Value

NRMSE of the fitted model

Examples

```
actual <- c(100, 150, 200, 250, 300, 350, 400, 450, 500, 550)
predicted <- c(95, 148, 210, 245, 290, 360, 395, 440, 510, 540)
NRMSE(actual, predicted)
```

R2	<i>Coefficient of Determination (R-Square)</i>
----	--

Description

Coefficient of Determination (R-Square)

Usage

```
R2(actual, predicted)
```

Arguments

actual	Actual value of the target variable
predicted	Predicted value of the target variable

Value

Coefficient of Determination (R-Square) of the fitted model

Examples

```
actual <- c(100, 150, 200, 250, 300, 350, 400, 450, 500, 550)
predicted <- c(95, 148, 210, 245, 290, 360, 395, 440, 510, 540)
R2(actual, predicted)
```

RMSE

Root Mean Squared Error

Description

Root Mean Squared Error

Usage

```
RMSE(actual, predicted)
```

Arguments

actual	Actual value of the target variable
predicted	Predicted value of the target variable

Value

RMSE and MSE of the fitted model

Examples

```
actual <- c(100, 150, 200, 250, 300, 350, 400, 450, 500, 550)
predicted <- c(95, 148, 210, 245, 290, 360, 395, 440, 510, 540)
RMSE(actual, predicted)
```

Index

accuracy, [2](#)

CVRMSE, [2](#)

MAE, [3](#)

MAPE, [3](#)

ME, [4](#)

NRMSE, [5](#)

R2, [5](#)

RMSE, [6](#)