

Package ‘regressorR’

July 23, 2025

Title Regression Data Analysis System

Type Package

Version 4.0.4

Depends R (>= 4.1)

Imports DT (>= 0.27), gbm (>= 2.2.2), pls (>= 2.8-1), dplyr (>= 1.1.0), psych (>= 2.4.6), shiny (>= 1.7.4), golem (>= 0.3.5), rlang (>= 1.0.6), glmnet (>= 4.1-6), loadR (>= 1.1.3), shinyjs (>= 2.1.0), trainR (>= 2.2.0), shinyAce (>= 0.4.2), echarts4r (>= 0.4.4), htmltools (>= 0.5.4), rpart.plot (>= 3.1.1), shinydashboard (>= 0.7.2), shinycustomloader (>= 0.9.0), shinydashboardPlus (>= 2.0.3)

Description Perform a supervised data analysis on a database through a 'shiny' graphical interface. It includes methods such as linear regression, penalized regression, k-nearest neighbors, decision trees, ada boosting, extreme gradient boosting, random forest, neural networks, deep learning and support vector machines.

License GPL (>= 2)

Encoding UTF-8

URL <https://promidat.website/>

BugReports <https://github.com/PROMiDAT/predictorR/issues>

RoxygenNote 7.3.2

NeedsCompilation no

Author Oldemar Rodriguez [aut, cre],
Andres Navarro D. [ctb, prg],
Diego Jimenez A. [ctb, prg],
Ariel Arroyo S. [ctb, prg],
Joseline Quiros M. [ctb, prg]

Maintainer Oldemar Rodriguez <oldemar.rodriguez@ucr.ac.cr>

Repository CRAN

Date/Publication 2025-05-28 20:30:02 UTC

Contents

as_string_c	2
e.rdim.rmse	3
e.rdim.vare	3
exe	4
extract_code	4
e_boost_evol_error	5
e_boost_importance	6
e_coeff_lambda	6
e_JS	7
e_posib_lambda	8
e_rf_error	8
e_rndf_importance	9
general.indices	10
plot_real_prediction	10
regressoR	11
run_app	12
summary_indices	12
Index	13

as_string_c	<i>as_string_c</i>
-------------	--------------------

Description

creates a string representative of a vector

Usage

```
as_string_c(vect, quote = TRUE)
```

Arguments

- vect a vector with values
- quote a logical value. If TRUE, the values on the vector will be surrounded by quotes.

Examples

```
as_string_c(c("A", "B", "C"))
as_string_c(c(5, 6, 7))
as_string_c(c(5, 6, 7), quote = FALSE)
as_string_c(iris$Species)
```

`e.rdim.rmse`*e.rdim.rmse*

Description

graph the root mean square error of cross validation according to components used.

Usage

```
e.rdim.rmse(modelo, ncomp, titles = c("RMSE", "Componente"))
```

Arguments

<code>modelo</code>	a dimension reduction model.
<code>ncomp</code>	the optimum number of components.
<code>titles</code>	labels on the chart

Value

echarts4r plot

Author(s)

Diego Jimenez <diego.jimenez@promidat.com>

`e.rdim.vare`*plot_pred_rd*

Description

graph of variance explained in the predictors according to components used.

Usage

```
e.rdim.vare(modelo, ncomp, titles = c("Varianza Explicada", "Componente"))
```

Arguments

<code>modelo</code>	a dimension reduction model.
<code>ncomp</code>	the optimum number of components.
<code>titles</code>	labels on the chart

Value

echarts4r plot

Author(s)

Ariel Arroyo <luis.ariel.arroyo@promidat.com>

exe

exe

Description

concat and execute a text in R.

Usage

```
exe(..., envir = parent.frame())
```

Arguments

...	one or more texts to be concatenated and executed.
envir	the environment in which expr is to be evaluated.

Value

the result of the execute.

Examples

```
exe("5+5")
exe("5", "+", "5")
exe("plot(iris$Species)")
```

extract_code

extract_code

Description

gets the code of a function in text form.

Usage

```
extract_code(funcion, envir = parent.frame())
```

Arguments

funcion	the name of the function to be extracted.
envir	the environment in which expr is to be evaluated.

Examples

```
extract_code("cat")
extract_code("plot")

parse(text = extract_code("plot"))
```

e_boost_evol_error	<i>Error Evolution</i>
--------------------	------------------------

Description

Error Evolution

Usage

```
e_boost_evol_error(modelo, label = "Iterations")
```

Arguments

modelo	a adabag model.
label	a label plot.

Value

echarts4r plot

Author(s)

Joseline Quiros <joseline.quiros@promidat.com>

Examples

```
model <- trainR::train.gbm(Sepal.Length~., data = iris,
  distribution = "gaussian", n.trees = 5, shrinkage = 0.01)
e_boost_evol_error(model, iris)
```

e_boost_importance	<i>Var importance Adabag</i>
--------------------	------------------------------

Description

Var importance Adabag

Usage

```
e_boost_importance(modelo)
```

Arguments

modelo a adabag model.

Value

echarts4r plot

Author(s)

Joseline Quiros <joseline.quiros@promidat.com>

Examples

```
model <- trainR::train.gbm(Sepal.Length~., data = iris,  
  distribution = "gaussian", n.trees = 5, shrinkage = 0.01)  
e_boost_importance(model)
```

e_coeff_lambda	<i>Coefficients and lambda</i>
----------------	--------------------------------

Description

Plot the coefficients and selected lambda of a glmnet model.

Usage

```
e_coeff_lambda(model, sel.lambda = NULL, label = "Log Lambda")
```

Arguments

model a glmnet model.
sel.lambda the selected lambda.
label a character specifying the title to use on selected lambda tooltip.

Value

echarts4r plot

Author(s)

Joseline Quiros <joseline.quiros@promidat.com>

Examples

```
x <- model.matrix(Sepal.Length ~ ., iris)[, -1]
y <- iris$Sepal.Length
modelo <- glmnet::cv.glmnet(x, y, standardize = TRUE, alpha = 1, family = "gaussian")
e_coeff_lambda(modelo, log(modelo$lambda[1]))
```

e_JS

Eval character vectors to JS code

Description

Eval character vectors to JS code

Usage

```
e_JS(...)
```

Arguments

... character vectors to evaluate

Author(s)

Joseline Quiros <joseline.quiros@promidat.com>

Examples

```
e_JS('5 * 3')
```

e_posib_lambda	Possible lambda
----------------	-----------------

Description

Possible lambda

Usage

```
e_posib_lambda(  
  cv.glm,  
  labels = c("Valor Superior", "Valor Inferior", "lambda")  
)
```

Arguments

- cv.glm a cv.glmnet model.
- labels a character vector of length 3 specifying the titles to use on legend.

Value

echarts4r plot

Author(s)

Joseline Quiros <joseline.quiros@promidat.com>

Examples

```
x            <- model.matrix(Species~., iris)[, -1]  
y            <- iris[, 'Species']  
cv.glm      <- glmnet::cv.glmnet(x, y, standardize = TRUE, alpha = 1, family = 'multinomial')  
e_posib_lambda(cv.glm)
```

e_rf_error	Error Evolution
------------	-----------------

Description

Error Evolution

Usage

```
e_rf_error(modelo, label = "Trees")
```

Arguments

modelo a random forest model.
label a label plot.

Value

echarts4r plot

Author(s)

Joseline Quiros <joseline.quiros@promidat.com>

Examples

```
model <- traineR::train.randomForest(Sepal.Length~., iris, mtry = 2, ntree = 20)
e_rf_error(model, "Trees")
```

e_rndf_importance	<i>Var importance Random Forest</i>
-------------------	-------------------------------------

Description

Var importance Random Forest

Usage

```
e_rndf_importance(modelo, error = "X.IncMSE")
```

Arguments

modelo a random forest model.
error a character specifying the type of importance.

Value

echarts4r plot

Author(s)

Joseline Quiros <joseline.quiros@promidat.com>

Examples

```
model <- traineR::train.randomForest(Species~., iris, mtry = 2, ntree = 20)
e_rndf_importance(model)
```

general.indices	<i>general.indices</i>
-----------------	------------------------

Description

calculates indices to measure accuracy of a model.

calculates indices to measure accuracy of a model.

Usage

```
general.indices(real, prediccion)
```

```
general.indices(real, prediccion)
```

Arguments

real the real values in traning-testing.

prediccion the prediction values in traning-testing.

Value

a list with the Correlation, Relative Error, Mean Absolute Error and Root Mean Square Error.

a list with the Correlation, Relative Error, Mean Absolute Error and Root Mean Square Error.

Examples

```
real <- rnorm(45)
prediction <- rnorm(45)
model <- "KNN"
general.indices(real, prediction)
```

```
real <- rnorm(45)
prediction <- rnorm(45)
model <- "KNN"
general.indices(real, prediction)
```

plot_real_prediction	<i>plot_real_prediction</i>
----------------------	-----------------------------

Description

scatter plot between the actual value of the variable to be predicted and the prediction of the model.

Usage

```
plot_real_prediction(real, pred, titles = c("Real", "Prediccion"))
```

Arguments

real	the real values in training-testing.
pred	the prediction values in training-testing.
titles	Labels on the chart

Value

echarts4r plot

Author(s)

Ariel Arroyo <luis.ariel.arroyo@promidat.com>

regressoR

Regression Data Analysis System

Description

Perform a supervised data analysis on a database through a 'shiny' graphical interface. It includes methods such as linear regression, penalized regression, k-nearest neighbors, decision trees, ada boosting, extreme gradient boosting, random forest, neural networks, deep learning and support vector machines.

Details

Package:	regressoR
Type:	Package
Version:	4.0.2
Date:	2024-11-15
License:	GPL (>=2)

Author(s)

Oldemar Rodriguez Rojas
Maintainer: Oldemar Rodriguez Rojas <oldemar.rodriguez@ucr.ac.cr>

See Also

Useful links:

- <https://promidat.website/>
- Report bugs at <https://github.com/PROMiDAT/predictoR/issues>

run_app

Run the Shiny Application

Description

Run the Shiny Application

Usage

```
run_app(...)
```

Arguments

... A series of options to be used inside the app.

summary_indices

summary_indices

Description

summarizes a variable by returning the minimum, first quartile, third quartile and maximum value.

Usage

```
summary_indices(data)
```

Arguments

data a numeric vector.

Examples

```
summary_indices(iris$Sepal.Length)
```

Index

- * **package**
 - regressoR, [11](#)
- as_string_c, [2](#)
- e.rdim.rmse, [3](#)
- e.rdim.vare, [3](#)
- e_boost_evol_error, [5](#)
- e_boost_importance, [6](#)
- e_coeff_lambda, [6](#)
- e_JS, [7](#)
- e_posib_lambda, [8](#)
- e_rf_error, [8](#)
- e_rndf_importance, [9](#)
- exe, [4](#)
- extract_code, [4](#)
- general.indices, [10](#)
- plot_real_prediction, [10](#)
- regressoR, [11](#)
- regressoR-package (regressoR), [11](#)
- run_app, [12](#)
- summary_indices, [12](#)