

Package ‘regressorR’

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Title Regression Data Analysis System

Type Package

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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.

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Encoding UTF-8

URL <https://promidat.website/>

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

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as_string_c	<i>as_string_c</i>
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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>
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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>
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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	<i>Possible lambda</i>
----------------	------------------------

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

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>
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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 training-testing.

prediccion the prediction values in training-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>
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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
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Date:	2024-11-15
License:	GPL (>=2)

Author(s)

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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)
```

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