Package ‘predictoR’

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Title  Predictive Data Analysis System

Version  2.0.7

Description  Perform a supervised data analysis on a database through a 'shiny' graphical interface. It includes methods such as K-Nearest Neighbors, Decision Trees, ADA Boosting, Extreme Gradient Boosting, Random Forest, Neural Networks, Deep Learning, Support Vector Machines and Bayesian Methods.

License  GPL (>= 2)

Imports  DT (>= 0.19), golem (>= 0.3.1), shiny (>= 1.7.1), rlang (>= 0.4.11), config (>= 0.3.1), xtable (>= 1.8-4), glmnet (>= 4.1-2), rpart (>= 4.1-15), colourpicker (>= 1.1.1), traineR (>= 1.6.2), shinyjs (>= 2.0.0), xgboost (>= 1.4.1.1), rpart.plot (>= 3.0.9), echarts4r (>= 0.4.2), shinyAce (>= 0.4.1), htmltools (>= 0.5.2), shinydashboard (>= 0.7.2), shyncustomloader (>= 0.9.0), shinydashboardPlus (>= 2.0.3)

Depends  R (>= 4.1)

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Author  Oldemar Rodriguez [aut, cre],
        Andres Navarro [aut, prg],
        Joseline Quirós [aut, prg],
        Diego Jiménez [ctb, prg]

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

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R topics documented:

datos.disyuntivos .......................................................... 2
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Create disjunctive columns to a data.frame.

Usage

datos.disyuntivos(data, var)

Arguments

data a data.frame object.
var the column name to apply disjunctive code.

Value

data.frame

Author(s)

Diego Jimenez <diego.jimenez@promidat.com>

Examples

datos.disyuntivos(iris, "Species")
dfnormal

Description
Data.frame with normal test

Usage
dfnormal(data)

Arguments
data a data.frame object only with the numeric columns.

Value
data.frame

Author(s)
Diego Jimenez <diego.jimenez@promidat.com>

Examples
dfnormal(iris[, -5])

e_coeff_landa

Description
Plot the coefficients and selected lambda of a glmnet model.

Usage
e_coeff_landa(model, category, sel.lambda = NULL, label = "Log Lambda")

Arguments
model a glmnet model.
category a category of the variable to be predicted.
selected lambda the selected lambda.
label a character specifying the title to use on selected lambda tooltip.
e_cor

Value

echarts4r plot

Author(s)

Joseline Quiros <joseline.quiros@promidat.com>

Examples

modelo <- trainR::train.glmnet(Species~., iris)
e_coeff_landa(modelo, 'setosa', log(modelo$lambda[1]))

---

e_cor  Correlation plot

Description

Correlation plot

Usage

e_cor(x, colors = c("#FF5733","#F8F5F5","#2E86C1"))

Arguments

x  a data.frame with correlation values.

colors  a vector of length 3 with color values.

Value

echarts4r plot

Author(s)

Diego Jimenez <diego.jimenez@promidat.com>

Examples

p <- round(cor(iris[, -5]), 3)
e_cor(p)
Description

Gauge Plot

Usage

```r
e_global_gauge(  
    value = 100,  
    label = "Label",  
    color1 = "#B5E391",  
    color2 = "#90C468"  
)
```

Arguments

- **value**: a number specifying the value of the graph.
- **label**: a character specifying the title to use on legend.
- **color1**: a color for the gauge.
- **color2**: a shadowColor for the gauge.

Value

echarts4r plot

Author(s)

Joseline Quiros <joseline.quiros@promidat.com>

Examples

```r
e_global_gauge(87, "Global Precision")
```
e_histboxplot

Histogram + boxplot

Description

Histogram + boxplot

Usage

```r
e_histboxplot(
  data, 
  var.name, 
  colorBar = "steelblue", 
  colorPoint = "red", 
  titulos = c("Minimo", "Primer Cuartil", "Mediana", "Tercer Cuartil", "Maximo")
)
```

Arguments

- **data**: a numeric column of a data.frame.
- **var.name**: a character value specifying the name of the variable.
- **colorBar**: a color for the bars.
- **colorPoint**: a color for the points.
- **titulos**: a character vector of length 5 specifying the titles to use on legend.

Value

echarts4r plot

Author(s)

Diego Jimenez <diego.jimenez@promidat.com>

Examples

```r
e_histboxplot(iris$Sepal.Width, "Sepal.Width")
```
Description

Normal plot

Usage

```r
e_histnormal(
  data,
  colorbar = "steelblue",
  colorline = "gray",
  nombres = c("Histograma", "Curva Normal")
)
```

Arguments

- **data**: a numeric column of a data.frame.
- **colorbar**: a color for the bars.
- **colorline**: a color for the line.
- **nombres**: a character vector of length 2 specifying the titles to use on legend.

Value

echarts4r plot

Author(s)

Diego Jimenez <diego.jimenez@promidat.com>

Examples

```r
e_histnormal(iris$Sepal.Length)
```
### e_JS

**Eval character vectors to JS code**

**Description**

Eval character vectors to JS code

**Usage**

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

**Arguments**

... character vectors to evaluate

**Author(s)**

Joseline Quiros <joseline.quiros@promidat.com>

**Examples**

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

---

### e_posib_lambda

**Possible lambda**

**Description**

Possible lambda

**Usage**

```r
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)
```

Description
Qplot + Qline

Usage
```
e_qq(data, colorpoint = "steelblue", colorline = "gray")
```

Arguments
```
data                   a numeric column of a data.frame.
colorpoint             a color for the points.
colorline              a color for the line.
```

Value
echarts4r plot

Author(s)
Diego Jimenez <diego.jimenez@promidat.com>

Examples
```
e_qq(iris$Sepal.Length)
```

```
**e_rf_error**  
*Error Evolution*

**Description**

Error Evolution

**Usage**

```r
e_rf_error(model)
```

**Arguments**

- `model` a random forest model.

**Value**

echarts4r plot

**Author(s)**

Joseline Quiros <joseline.quiros@promidat.com>

**Examples**

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

---

**predictoR**  
*Predictive Data Analysis System*

**Description**

Perform a supervised data analysis on a database through a 'shiny' graphical interface. It includes methods such as K-Nearest Neighbors, Decision Trees, ADA Boosting, Extreme Gradient Boosting, Random Forest, Neural Networks, Deep Learning, Support Vector Machines and Bayesian Methods.

**Details**

- **Package:** predictoR
- **Type:** Package
- **Version:** 2.0.1
- **Date:** 2021-06-11
- **License:** GPL (>=2)
Author(s)
Oldemar Rodriguez Rojas
Maintainer: Oldemar Rodriguez Rojas <oldemar.rodriguez@ucr.ac.cr>

Description
Run the Shiny Application

Usage
run_app(...)

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