

# Package ‘predictoR’

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**Title** Predictive Data Analysis System

**Version** 2.0.4

**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 (>= 0.18), golem (>= 0.3.1), shiny (>= 1.6.0), rlang (>= 0.4.11), config (>= 0.3.1), xtable (>= 1.8-4), glmnet (>= 4.1-2), rpart (>= 4.1-15), colourpicker (>= 1.1.0), traineR (>= 1.6.2), shinyjs (>= 2.0.0), xgboost (>= 1.4.1.1), rpart.plot (>= 3.0.9), echarts4r (>= 0.4.1), shinyAce (>= 0.4.1), htmltools (>= 0.5.1.1), shinydashboard (>= 0.7.1), shinycustomloader (>= 0.9.0), shinydashboardPlus (>= 2.0.1)

**Depends** R (>= 4.1)

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datos.disyuntivos	<i>Create disjunctive columns to a data.frame.</i>
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## Description

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")
```

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dfnormal	<i>Data.frame with normal test</i>
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**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])
```

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e_coeff_landa	<i>Coefficients and lambda</i>
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**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.  
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**

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

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e\_cor

*Correlation plot*

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**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)
```

---

`e_global_gauge`*Gauge Plot*

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**Description**

Gauge Plot

**Usage**

```
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 &lt;joseline.quiros@promidat.com&gt;

**Examples**

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

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e_histboxplot	<i>Histogram + boxplot</i>
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**Description**

Histogram + boxplot

**Usage**

```
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**

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

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e_histnormal	<i>Normal plot</i>
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**Description**

Normal plot

**Usage**

```
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**

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

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e_JS	<i>Eval character vectors to JS code</i>
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**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')
```

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e_posib_lambda	<i>Possible lambda</i>
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**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\_qq

*Qplot + Qline*

---

**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*

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**Description**

Error Evolution

**Usage**

```
e_rf_error(model)
```

**Arguments**

model            a random forest model.

**Value**

echarts4r plot

**Author(s)**

Joseline Quiros <joseline.quiros@promidat.com>

**Examples**

```
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>

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run\_app

*Run the Shiny Application*

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**Description**

Run the Shiny Application

**Usage**

run\_app(...)

**Arguments**

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

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