Package 'predictoR'

April 30, 2022

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), shinycustomloader (>= 0.9.0), shinydashboardPlus (>= 2.0.3)

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R topics documented:

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

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	*Data.frame with normal test*

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	*Coefficients and lambda*

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_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 lenght 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*

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 <joseline.quiros@promidat.com>

Examples

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

---

e_histboxplot *Histogram + boxplot*

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")
```

---

e_histnormal *Normal plot*

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)
```

---

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_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*

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

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Author(s)

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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.

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