Package: tigerTree (via r-universe)

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Type Package

Title Functions for Working with Trees in Elementary Data Analysis

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Author Homer White <hwhite0@georgetowncollege.edu>

Maintainer Homer White <hwhite0@georgetowncollege.edu>

Description For use by elementary students in statistics or data
analysis.

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Depends tree

Imports ggplot2, plyr, shiny, DT

LazyLoad yes

LazyData true

RoxygenNote 5.0.1

Config/pak/sysreqs make zlib1g-dev

Repository https://homerhanumat.r-universe.dev

RemoteUrl https://github.com/homerhanumat/tigerTree

RemoteRef HEAD

RemoteSha 30a91996d41db9b95f99b00d0a3d53dea254652c

Contents

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distAtNodes   *Distribution at Nodes*

Description

Easily find the distribtution of the response variable at each of the nodes of a classification tree.

Usage

```
distAtNodes(mod, df, resp_varname)
```

Arguments

mod	A tree model constructed by the tree package.
df	A data frame (usually the training set, quiz set or test set).
resp_varname	The name of the response variable, as a character string.

Value

A table object.

Note

For more details on use, consult http://statistics.rainandrhino.org/tigerTree/distAtNodes.html

Examples

```
## Not run:
dfs <- divideTrainTest(seed = 3030, prop.train = 0.67, data = iris)
irisTrain <- dfs$train
irisTest <- dfs$test
tr.mod <- tree(Species ~ ., data = irisTrain)
distAtNodes(tr.mod, df = irisTest, resp_varname = "Species")

## End(Not run)
```

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divideTrainTest   *Train-Test Splitting*

Description

Divide a data frame into training and test set, or training, quiz and test set.

Usage

```
divideTrainTest(seed = NULL, prop.train = 0.6, prop.quiz = NULL, data)
```

Arguments

seed	A seed for randomization (recommended).
prop.train	Proportion of the data to include in the training set.
prop.quiz	Proportion of the data to include in a quiz set (if any). Set to NULL by default.
data	The data frame to be split.

Value

A list with elements named test and train, or with elements named train and quiz and test.

Note

For more details on use, consult http://statistics.rainandrhino.org/tigerTree/divideTrainTest.html

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tigerTree   *Functions for Working with Trees in Elementary Data Analysis*

Description

For use by elementary students in statistics and data analysis.

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treeDetective	*Tree-Detective*

Description

Yes-No questions guide the user through a classification or regression tree.

Usage

```
treeDetective(mod, data, rowname = "1")
```

Arguments

mod	A tree model constructed by the tree package.
data	Data frame used to construct the model.
rowname	Character indicating the initial row name in mod$frame. Set to "1" by default.

Value

Side-effects to console.

Note

For more details on use, consult http://statistics.rainandrhino.org/tigerTree/treeDetective.html

Examples

```
## Not run:
tr.mod <- tree(Species ~ ., data = iris)
treeDetective(tr.mod, iris)

## End(Not run)
```

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tryTree	*Predict with a Tree*

Description

Predict with a Tree

Usage

```
tryTree(mod, testSet, truth, printOut = TRUE)
```

Arguments

mod	A tree model constructed by package tree.
testSet	The test set (a data frame).
truth	Correct values of the response variable.
printOut	If TRUE, provide a printout to the console.

Value

A list containing: deviance and residMeanDev (residual mean deviance). If mod is a classification tree, then the list also contains error.rate, misclass (number of misclassifications at terminal nodes), and confusion (the confusion matrix).

Note

For more details on use, consult http://statistics.rainandrhino.org/tigerTree/divideTrainTest.html

Examples

```
dfs <- divideTrainTest(seed = 3030, prop.train = 0.67, data = iris)
irisTrain <- dfs$train
irisTest <- dfs$test
tr.mod <- tree(Species ~ ., data = irisTrain)
summary(tr.mod)
tryTree(mod = tr.mod, testSet = irisTest, truth = irisTest$Species)
```

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tuneTree	*Hand-Tune a Tree Model*

Description

Hand-Tune a Tree Model

Usage

```
tuneTree(formula, data, testSet, truth)
```

Arguments

formula	formula for tree.
data	training data to make the tree models
testSet	quiz data to try the models on
truth	values of response variable in the quiz data

Value

No values returned

Note

For more details on use, consult http://statistics.rainandrhino.org/tigerTree/tuneTree.html

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