Package: rotationForest (via r-universe)

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Type Package

Title Fit and Deploy Rotation Forest Models

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Imports rpart

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Description Fit and deploy rotation forest models (``Rodriguez, J.J.,
Kuncheva, L.I., 2006. Rotation forest: A new classifier
ensemble method. IEEE Trans. Pattern Anal. Mach. Intell. 28,
1619-1630 <doi:10.1109/TPAMI.2006.211>'') for binary
classification. Rotation forest is an ensemble method where
each base classifier (tree) is fit on the principal components
of the variables of random partitions of the feature set.

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RoxygenNote 6.0.1

NeedsCompilation no

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

RemoteUrl https://github.com/cran/rotationForest

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Contents

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predict.rotationForest

Predict method for rotationForest objects

Description

Prediction of new data using rotationForest.

Usage

```
## S3 method for class 'rotationForest'
predict(object, newdata, all = FALSE, ...)
```

Arguments

object	An object of class rotationForest
newdata	A data frame with the same predictors as in the training data.
all	Return the predictions per tree instead of the average.
...	Not used currently.

Value

A vector containing the response scores.

Author(s)

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References

Rodriguez, J.J., Kuncheva, L.I., 2006. Rotation forest: A new classifier ensemble method. IEEE Trans. Pattern Anal. Mach. Intell. 28, 1619-1630. doi:10.1109/TPAMI.2006.211

See Also

rotationForest

Examples

```
data(iris)
y <- as.factor(ifelse(iris$Species[1:100]=="setosa",0,1))
x <- iris[1:100,-5]
rF <- rotationForest(x,y)
predict(object=rF,newdata=x)
```

rotationForest	*Binary classification with Rotation Forest (Rodriguez en Kuncheva, 2006)*

Description

`rotationForest` implements an ensemble method where each base classifier (tree) is fit on the principal components of the variables of random partitions of the feature set.

Usage

```
rotationForest(x, y, K = round(ncol(x)/3, 0), L = 10, verbose = FALSE,
  ...)
```

Arguments

x	A data frame of predictors (numeric, or integer). Categorical variables need to be transformed to indicator (dummy) variables. At minimum x requires two columns.
y	A factor containing the response vector. Only {0,1} is allowed.
K	The number of variable subsets. The default is the value K that results in three features per subset.
L	The number of base classifiers (trees using the `rpart` package). The default is 10.
verbose	Boolean. Should information about the subsets be printed?
...	Arguments to `rpart.control`. First run `library(rpart)`.

Value

An object of class `rotationForest`, which is a list with the following elements:

models	A list of trees.
loadings	A list of loadings.
columnnames	Column names of x.

Author(s)

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References

Rodriguez, J.J., Kuncheva, L.I., 2006. Rotation forest: A new classifier ensemble method. IEEE Trans. Pattern Anal. Mach. Intell. 28, 1619-1630. doi:10.1109/TPAMI.2006.211

See Also

predict.rotationForest

Examples

```
data(iris)
y <- as.factor(ifelse(iris$Species[1:100]=="setosa",0,1))
x <- iris[1:100,-5]
rF <- rotationForest(x,y)
predict(object=rF,newdata=x)
```

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rotationForestNews   *Display the NEWS file*

Description

rotationForestNews shows the NEWS file of the rotationForest package.

Usage

```
rotationForestNews()
```

Author(s)

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Examples

```
rotationForestNews()
```

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