Package: quantregRanger (via r-universe)

November 4, 2024

Type Package

Title Quantile Regression Forests for 'ranger'

Description This is the implementation of quantile regression forests for the fast random forest package 'ranger'.

URL https://github.com/PhilippPro/quantregRanger

BugReports https://github.com/PhilippPro/quantregRanger/issues

License GPL-3

Encoding UTF-8

Depends R (>= 3.0.2), stats

Imports Rcpp (>= 0.12.2), ranger

LinkingTo Rcpp

LazyData yes

ByteCompile yes

Version 1.0

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RoxygenNote 6.0.1

Suggests testthat

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

RemoteUrl https://github.com/philippproquantregranger

RemoteRef HEAD

RemoteSha e80b832df0711b45b658cefab9c4c120d2cb75dc

Contents

predict.quantregRanger *quantregRanger prediction*

Description

Predicts quantiles for a quantile regression forest trained with quantregRanger.

Usage

```
## S3 method for class 'quantregRanger'
predict(object, data = NULL, quantiles = c(0.1,
  0.5, 0.9), all = TRUE, obs = 1, ...)
```

Arguments

object	quantregRanger object.
data	New test data of class data.frame
quantiles	Numeric vector of quantiles that should be estimated
all	A logical value. all=TRUE uses all observations for prediction. all=FALSE uses only a certain number of observations per node for prediction (set with argument obs). The default is all=TRUE
obs	An integer number. Determines the maximal number of observations per node
...	Currently ignored. to use for prediction. The input is ignored for all=TRUE. The default is obs=1

Value

A matrix. The first column contains the conditional quantile estimates for the first entry in the vector quantiles. The second column contains the estimates for the second entry of quantiles and so on.

quantregRanger *Quantile Regression with Ranger*

Description

Creates a quantile regression forest like described in Meinshausen, 2006.

Usage

```
quantregRanger(formula = NULL, data = NULL, params.ranger = NULL)
```

Arguments

formula	Object of class formula or character describing the model to fit.
data	Training data of class data.frame, matrix or gwaa.data (GenABEL).
params.ranger	List of further parameters that should be passed to ranger. See ranger for possible parameters.

Author(s)

Philipp Probst

References

Meinshausen, Nicolai. "Quantile regression forests." The Journal of Machine Learning Research 7 (2006): 983-999.

See Also

predict.quantregRanger

Examples

```
y = rnorm(150)
x = cbind(y + rnorm(150), rnorm(150))
data = data.frame(x,y)
mod = quantregRanger(y ~ ., data = data, params.ranger = list(mtry = 2))
predict(mod, data = data[1:5, ], quantiles = c(0.1, 0.5, 0.9))
```

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