Package 'sbart'

May 1, 2018

Type Package

Title Sequential BART for Imputation of Missing Covariates

Version 0.1.1

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Description Implements the sequential BART (Bayesian Additive Regression Trees) approach to impute the missing covariates. The algorithm applies a Bayesian nonparametric approach on factored sets of sequential conditionals of the joint distribution of the covariates and the missingness and applying the Bayesian additive regression trees to model each of these univariate conditionals. Each conditional distribution is then sampled using MCMC algorithm. The published journal can be found at <https://doi.org/10.1093/biostatistics/kxw009> Package provides a function, seqBART(), which computes and returns the imputed values.

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LazyData TRUE

RoxygenNote 6.0.1

Depends R (>= 2.10)

Imports LaplacesDemon, msm, Rcpp

LinkingTo Rcpp

Suggests testthat

NeedsCompilation yes

Repository CRAN

Date/Publication 2018-05-01 14:00:18 UTC

R topics documented:

seqBART *Sequential Bayesian Additive Regression Trees Model*

Description

A flexible Bayesian nonparametric model that is used as imputation tool for missing covariates.

Usage

```
seqBART(xx, yy, datatype, type = 1, numskip = 199, burn = 1000, m = 200,
  sigdf = 3, sigquant = 0.9, kfac = 2)
```

Arguments

xx	Dataset of covariate matrix with missing values (NAs).
yy	Response (fully observed).
datatype	a vector indicating the type of covariates (0=continuous, 1=binary).
type	0=no reponse, 1=continuous response (linear regression used for imputation) and 2=binary response (logistic regression used for imputation)
numskip	number of iterations skipped
burn	number of iterations for burn-in
m	m value
sigdf	sig df value
sigquant	sign quant values
kfac	kd fac value

Value

Imputed Dataset Values

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