The BART R package

Rodney Sparapani
Medical College of Wisconsin

Charles Spanbauer
University of Minnesota

Robert McCulloch
Arizona State University

Abstract

Bayesian Additive Regression Trees (BART) provide flexible nonparametric modeling of covariates for continuous, binary, categorical and time-to-event outcomes. For more information see Sparapani, Spanbauer and McCulloch <doi:10.18637/jss.v097.i01>.

Keywords: binary trees, black-box, categorical, competing risks, continuous, ensemble predictive model, forking, multinomial, multi-threading, OpenMP, recurrent events, survival analysis.

N.B. This vignette has been published in an open access journal (Sparapani, Spanbauer, and McCulloch 2021). The material will not be repeated here to save space in the package tarball; however, erratum (if any) will appear here.

References

Sparapani R, Spanbauer C, McCulloch R (2021). "Nonparametric Machine Learning and Efficient Computation with Bayesian Additive Regression Trees: the **BART** R Package." *Journal of Statistical Software*, **97**(1), 1–66. `doi:10.18637/jss.v097.i01`.

Affiliation:

Rodney Sparapani rsparapa@mcw.edu
Division of Biostatistics
Institute for Health and Equity
Medical College of Wisconsin, Milwaukee campus
8701 Watertown Plank Road
Milwaukee, WI 53226, USA