

# Package ‘DidacticBoost’

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**Type** Package

**Title** A Simple Implementation and Demonstration of Gradient Boosting

**Version** 0.1.1

**Date** 2016-04-19

**Description** A basic, clear implementation of tree-based gradient boosting designed to illustrate the core operation of boosting models. Tuning parameters (such as stochastic subsampling, modified learning rate, or regularization) are not implemented. The only adjustable parameter is the number of training rounds. If you are looking for a high performance boosting implementation with tuning parameters, consider the 'xgboost' package.

**License** GPL-3

**Depends** R (>= 3.1.1), rpart (>= 4.1-10)

**Suggests** testthat

**URL** <https://github.com/dashaub/DidacticBoost>

**BugReports** <https://github.com/dashaub/DidacticBoost/issues>

**ByteCompile** true

**NeedsCompilation** no

**LazyData** TRUE

**RoxygenNote** 5.0.1

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**Repository** CRAN

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 fitBoosted

*Simple Gradient Boosting*


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### Description

Fit a simple, educational implementation of tree-based gradient boosting model.

### Usage

```
fitBoosted(formula, data, iterations = 100, verbose = TRUE)
```

### Arguments

formula	an object of class " <b>formula</b> " with a response but no interaction terms. The response variable should be a binomial factor that has values of 1 for a positive response or -1 for a negative or lack of response.
data	the dataframe containing the independent variables and the response
iterations	The number of training rounds for boosting.
verbose	should the current training round be printed to the console?

### Value

An S3 object of class boosted. This includes

### Examples

```
k <- kyphosis
k$Kyphosis <- factor(ifelse(k$Kyphosis == "present", 1L, -1L))
fit <- fitBoosted(Kyphosis ~ Age + Number + Start, data = k, iterations = 10)
```

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 is.boosted

*Is the Object a Boosted Model*


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### Description

Test the inheritance of an object

### Usage

```
is.boosted(x)
```

### Arguments

x	any R object
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**Value**

TRUE if the object is a boosted model

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`predict.boosted`      *Model Predictions*

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**Description**

Apply a fitted boosted model to newdata to form predictions. If no newdata is included, returned the fitted values of the model.

**Usage**

```
## S3 method for class 'boosted'  
predict(object, newdata = NULL, ...)
```

**Arguments**

`object`            a boosted model returned from [fitBoosted](#)  
`newdata`           the new independent variables to use for prediction. This should be a data frame.  
`...`                additional arguments affecting the predictions produced (ignored).

**Value**

`predict.boosted` produces a numeric vector with the predicted classes from the boosted model.

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