R news and tutorials contributed by (573) R bloggers

Welcome!

Here you will find daily **news and tutorials about R**, contributed by over 573 bloggers. There are many ways to **follow us -**

By e-mail:

On Facebook:

If you are an R blogger yourself you are invited to add your own R content feed to this site (**Non-English** R bloggers should add themselves- here)

Jobs for R-users

- Senior Research Scientist (University of Texas Health Science Center at Houston)
- Data Scientist – Machine Learning (in booking.com @ Amsterdam)
- Data Scientist – Analytics (in booking.com @ Amsterdam)
- Data Scientists (@ New York)
- Principal Analysts x2, Senior Analyst, Analyst

(@ Wellington)

Search & Hit Enter

Popular Searches

- heatmap
- Web Scraping
- maps
- hadoop
- shiny
- boxplot
- twitteR
- alt=
- Time series
- animation
- trading
- ggplot2
- latex
- ggplot
- finance
- Excel
- RStudio
- pca
- how to import image file to R
- quantmod
- googlevis
- market research
- tutorial
- eclipse
- rattle
- undefined
- knitr
- coplot
- GIS
- rcmdr

Recent Posts

- Replicating NatGeo's "Proper" Earthquake Map in R
- SparkR quick start that works
- RcppArmadillo 0.6.100.0.0
- Imputing missing data with R; MICE package
- Predicting Titanic deaths on Kaggle VII: More Stan
- RuleFit: When disassembled trees meet Lasso
- Recruiting Analysts for dynamic cutting edge public sector team
- Delta Method Confidence Bands for Gaussian Density
- A Simpler Explanation of Differential Privacy
- Hadley

- Wickham's "Ask Me Anything" on Reddit
- R, Open Source and GSoC
- London Vs Boston
- Jug: Easily Create R APIs
- R User Groups Highlight R Creativity
- ChIPseq data mining with ChIPseeker

Other sites

- SAS blogs
- Statistics of Israel
- Jobs for R-users

caretEnsemble Classification example

March 16, 2013
By Zachary Mayer

(This article was first published on **Modern Toolmaking**, and kindly contributed to R-bloggers)

Here's a quick demo of how to fit a binary classification model with caretEnsemble. Please note that I haven't spent as much time debugging caretEnsemble for classification models, so there's probably more bugs than my last post. Also note that multi class models are not yet supported.

```
#Setup
rm(list = ls(all = TRUE))
gc(reset=TRUE)
set.seed(1234) #From random.org

#Libraries
library(caret)
library(devtools)
install_github('caretEnsemble', 'zachmayer') #Install zach's c
library(caretEnsemble)

#Data
library(mlbench)
dat <- mlbench.xor(500, 2)
X <- data.frame(dat$x)
Y <- factor(ifelse(dat$classes=='1', 'Yes', 'No'))

#Split train/test
train <- runif(nrow(X)) <= .66

#Setup CV Folds
#returnData=FALSE saves some space
folds=5
repeats=1
myControl <- trainControl(method='cv', number=folds, repeats=r
                          returnResamp='none', classProbs=TRUE
                          returnData=FALSE, savePredictions=TR
                          verboseIter=TRUE, allowParallel=TRUE
                          summaryFunction=twoClassSummary,
                          index=createMultiFolds(Y[train], k=f
PP <- c('center', 'scale')
```

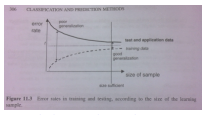
```
32
33  #Train some models
34  model1 <- train(X[train,], Y[train], method='gbm', trControl=m
35                  tuneGrid=expand.grid(.n.trees=500, .interactio
36  model2 <- train(X[train,], Y[train], method='blackboost', trCo
37  model3 <- train(X[train,], Y[train], method='parRF', trControl
38  model4 <- train(X[train,], Y[train], method='mlpWeightDecay',
39  model5 <- train(X[train,], Y[train], method='knn', trControl=m
40  model6 <- train(X[train,], Y[train], method='earth', trControl
41  model7 <- train(X[train,], Y[train], method='glm', trControl=m
42  model8 <- train(X[train,], Y[train], method='svmRadial', trCon
43  model9 <- train(X[train,], Y[train], method='gam', trControl=m
44  model10 <- train(X[train,], Y[train], method='glmnet', trContr
45
46  #Make a list of all the models
47  all.models <- list(model1, model2, model3, model4, model5, mod
48  names(all.models) <- sapply(all.models, function(x) x$method)
49  sort(sapply(all.models, function(x) min(x$results$ROC)))
50
51  #Make a greedy ensemble - currently can only use RMSE
52  greedy <- caretEnsemble(all.models, iter=1000L)
53  sort(greedy$weights, decreasing=TRUE)
54  greedy$error
55
56  #Make a linear regression ensemble
57  linear <- caretStack(all.models, method='glm', trControl=train
58  linear$error
59
60  #Predict for test set:
61  library(caTools)
62  preds <- data.frame(sapply(all.models, function(x){predict(x,
63  preds$ENS_greedy <- predict(greedy, newdata=X[!train,])
64  preds$ENS_linear <- predict(linear, newdata=X[!train,], type='
65  sort(data.frame(colAUC(preds, Y[!train])))
```

Demo2.R hosted with ♥ by GitHub view raw

Right now, this code fails for me if I try a model like a nnet or an SVM for stacking, so there's clearly bugs to fix.

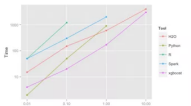
The greedy model relies 100% on the gbm, which makes sense as the gbm has an AUC of 1 on the training set. The linear model uses all of the models, and achieves an AUC of .5. This is a little weird, as the gbm, rf, SVN, and knn all achieve an AUC of close to 1.0 on the training set, and I would have expected the linear model to focus on these predictions. I'm not sure if this is a bug, or a failure of my stacking model.

Related



Model Exploration using K-sample Plot in Big Data
Similar post

New package for ensembling R models
Similar post



Benchmarking Random Forest Implementations
In "R bloggers"

To **leave a comment** for the author, please follow the link and comment on their blog: **Modern Toolmaking**.

Comments are closed.

Top 3 Posts from the past 2 days

- Imputing missing data with R; MICE package
- In-depth introduction to machine learning in 15 hours of expert videos
- RuleFit: When disassembled trees meet Lasso

Top 9 articles of the week

1. In-depth introduction to machine learning in 15 hours of expert videos
2. Installing R packages
3. Scatterplots
4. Using apply, sapply, lapply in R
5. Basics of Histograms
6. Learn R interactively with our new Introduction to R tutorial
7. How to Make a Histogram with Basic R
8. Why Big Data? Learning Curves
9. Adding a legend to a plot

Sponsors