

Absenteeism at work

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6/14/2020

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1(a).Introduction

Absenteeism is an issue at companies that has a high impact on productivity. It is difficult to run a business if employees are not showing up for work. Understanding the reasons why an employee has missed a certain amount of hours of work in a certain period is important because then appropriate action can be taken to reduce the amount of hours missed and increase productivity.

1(b).Goal of project

The purpose of this algorithm is to do the following; 1. Predict the number of hours missed for an employee based on various factors 2. Determine which predictors are the most influential. In order to do this we will use random forest and gradient boosting regression methods. Both methods stem from decision trees which will briefly be discussed before going into the analysis of the two algorithms. Prior to doing that, we will examine the structure of the data and do some preprocessing.

1(c).Loading the packages

```
#install packages
if(!require(knitr)) install.packages(knitr)

## Loading required package: knitr

if(!require(tree)) install.packages(tree)

## Loading required package: tree

if(!require(dplyr)) install.packages(dplyr)

## Loading required package: dplyr

##
## Attaching package: 'dplyr'

## The following objects are masked from 'package:stats':
##
##   filter, lag

## The following objects are masked from 'package:base':
##
##   intersect, setdiff, setequal, union

if(!require(stringr)) install.packages(stringr)

## Loading required package: stringr

if(!require(ggplot2)) install.packages("ggplot2")

## Loading required package: ggplot2
```

```
if(!require(randomForest)) install.packages(randomForest)
```

```
## Loading required package: randomForest
```

```
## randomForest 4.6-14
```

```
## Type rfNews() to see new features/changes/bug fixes.
```

```
##
```

```
## Attaching package: 'randomForest'
```

```
## The following object is masked from 'package:ggplot2':
```

```
##
```

```
##     margin
```

```
## The following object is masked from 'package:dplyr':
```

```
##
```

```
##     combine
```

```
if(!require(gbm)) install.packages(gbm)
```

```
## Loading required package: gbm
```

```
## Loaded gbm 2.1.5
```

```
if(!require(tree)) install.packages(tree)
```

```
if(!require(devtools)) install.packages("devtools")
```

```
## Loading required package: devtools
```

```
## Loading required package: usethis
```

```
## Registered S3 method overwritten by 'cli':
```

```
##   method      from
```

```
##   print.tree tree
```

```
if(!require(ggcorrplot)) install.packages(ggcorrplot)
```

```
## Loading required package: ggcorrplot
```

```
#load libraries
```

```
library(knitr)
```

```
library(dplyr)
```

```
library(tidyr)
```

```
library(stringr)
```

```
library(tree)
```

```
library(randomForest)
```

```
library(ggplot2)
```

```
library(gbm)
library(devtools)
library(ggcorrplot)

#Get the data from the UCI website to download into R
temp <- tempfile()
download.file("https://archive.ics.uci.edu/ml/machine-learning-databases/00445/Absenteeism_at_work_AAA.",
df <- read.csv(unz(temp, "Absenteeism_at_work.csv"))
```

2(a).Initial data exploration

ABOUT THE DATA

The data contains 21 columns and 741 records. An explanation of all of the records can be found at UCI Machine Learning Website¹. After loading the data, we see that there needs to be a few steps needed in order to get the data into the right format for our analysis. There are two important issues that need to be resolved; 1. After loading the data, the column headers are all read in as one character vector so this needs to be addressed. 2. The columns in the dataframe are listed as one character vector as well for each row of data, but can be separated by a semicolon.

2(b). Preprocessing and data cleaning

Column Headers

To address the first issue we notice that all of the field names start with a capital letter. After separating every value based on where it is capitalized, we see that the length of the vector is 26. We want the length value to be 21 since that is how many variables there. The reason why there are 26 elements is because some fields use multiple capital letters. For example, “Distance from Residence to Work” got split up into three fields since it is capitalized twice. So we have “Distance from” and “Residence to” and “work”. We use the paste function to concatenate those values. So all 3 of those values get replaced with “Distance from Residence to work”. So we still have 26 elements in the list, but we have the correct fields name this time. Using the “unique” function will get rid of any duplicates headers and we have 21 columns. A similar approach is used for “ID” and “Workload Average day”. So that is how the first issue is addressed above.

```
#Create column headers
col_headers<-names(df)
col_headers<-gsub('([[:upper:]])', ' \\1', col_headers)
col_headers<-strsplit(col_headers," ")[[1]]
col_headers[1:3]<- "ID"
col_headers[9:11]<-paste(col_headers[9],col_headers[10],col_headers[11],sep = "")
col_headers[14:15]<-paste(col_headers[14],col_headers[15],sep = "")
col_headers<-unique(col_headers)
```

Data Frame

To address the second issue we split the data frame by a “;” using the string split function. This creates a list where each element in the list is a row in the dataframe. From there we use the as.data.frame function to convert it to a dataframe. All qualitative variables are converted to factors and quantitative variables are converted to numeric. all Finally, we rename the column headers using the data in the previous section.

```
#Rename column headers
obsv_list<-strsplit(df[,1],";")
df<-data.frame(t(sapply(obsv_list,c)))
as.data.frame(obsv_list)
```

¹<https://archive.ics.uci.edu/ml/datasets/Absenteeism+at+work>.

```
names(df)<-col_headers

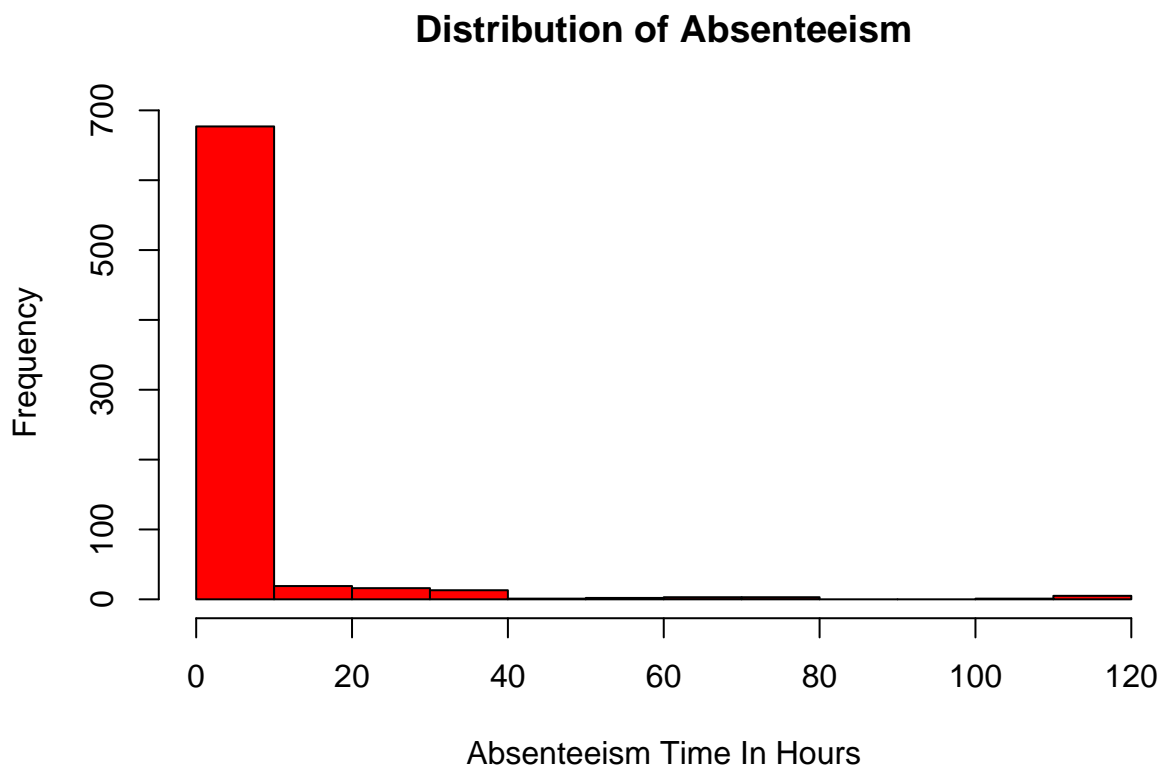
#Convert variables to factors and numeric
factor_var_col<-c(2:5,12,13,15,16)
df_factor<-data.frame(lapply(df[factor_var_col],as.factor))
df_numeric<-data.frame(lapply(df[-factor_var_col],as.numeric))
final_df<-cbind(df_factor,df_numeric)
```

Summary Statistics

Below is a correlation matrix that describes the relationship between all of the quantitative variables. Also, plotted below are histograms of the absenteeism times.

2(c). Graph

```
#Plot histogram of absenteeism
hist(final_df$Absenteeism.time.in.hours, col="red", xlab="Absenteeism Time In Hours",ylab="Frequency",m
```



As you can see, the majority of the employees are absent less than ten hours.

```
#Plot Correlation Matrix
corr <- round(cor(df_numeric), 1)
png(height=1200, width=1500, pointsize=15, file="overlap.png")
ggcorrplot(corr, hc.order = TRUE, type = "lower",lab = TRUE, lab_size = 2,pch = 2, tl.cex = 7,tl.srt = 90)
```

We see that there are a few strongly positively correlated and negatively correlated variables in the dataset. It might be wise to use an algorithm that will handle this issue. In the next section we will talk about tree based methods.

2(d). Model description Tree Based Methods

Decision trees

Decision trees can be used in classification and regression problems. They are designed to select certain variables, and split the data based off of a certain value. For example, # of pets is one of the variables in the dataset. So we could split the data into regions. For example we could split the data into regions so that we only look at the number of people who have less than 3 pets, and the other region would be the number of people who have at least 3 pets. Now within each of those regions, we could select another variable, for example “reason of absence”. We could see how many people who have less than 3 pets and so forth. This method can be used to predict what the final outcome would be. Below are some advantages and disadvantages. The biggest disadvantage is that it has poor predictive accuracy. If the number of conditions are too high, the tree tends to overfit or have high bias. Bagging To handle the high variance issue, a bootstrapping technique known as bagging can be applied. The idea here is that you subset the data into several subsets within the training set. Randomly subset them at random with replacement. Create M groups. Use each bag to train the model so we have M models. Query them with the same X. Get the output of the model and take the mean and that is the Y value. The idea of averaging these reduces the variance. One of the disadvantages is that it is difficult to interpret. Looking at the column headers we see that for the majority of the fields, they can be seperated anytime a capital letter occurs. The actual names of the variables are listed on the UCI Website

The purpose of Random forest is to decorrelate the trees. In this algorithm subset of rows AND columns are sampled from the data and a decision tree is built. Repeat this process several times. The base learner is the decision trees. Each decision tree will have a high variance. Gradient Boosting and Random forest decorrelate the trees by only selecting a subset of rows and a subset of columns, running the algorithm, an making a prediction. This process is done several times and then all of the values are aggregated together.

2(e). Model Analysis Analysis

Now that a brief overview of the tree base models have been given, let’s look at how this can be applied to the Absenteeism dataset. The two models that were selected to use were the Random Forest and Gradient Boosting for this project. From previous explanation, the decision tree was excluded since we know the other two methods are expected to out perform the others. Here are a few things to note when applying the two algorithms. 1. The number of trees is a parameter that is used in both algorithms 2. The number of branches (variables) for a given tree is going to be set to the square root of the number of total variables in the dataset which is 4. 3. Cross validation is not needed since this is a bootstrapping technique. The data is already being resampled based on the number of trees In order to determine the optimal number of trees and algorithm (selected from the two), we are going to iterate over different number of trees and see the following 1. Which model has the lowest test MSE 2. What is the number of trees that occurs where the MSE is the lowest. 3. Based off of the optimal model we will also examine which variables are the most important.

```
#Assign training/test split
set.seed(40, sample.kind="Rounding")
```

```
## Warning in set.seed(40, sample.kind = "Rounding"): non-uniform 'Rounding'
## sampler used
```

```
# if using R 3.5 or earlier, use 'set.seed(40)' instead
train_percent<-0.8
train <- sample(1:nrow(final_df),round(nrow(final_df)*train_percent))

#Create an empty vector that will contain the MSE for both models
number_of_trees<-seq(0,5000,100)
RF.MSE<-c()
Boost.MSE<-c()
```

```

#Run random forest and boost model. The number of trees wil increase by 100 each time and the mse will
#We can then find where the minimum MSE occurs in which model
for(i in 2:(length(number_of_trees)-1)){

  #Run both models using the training data
  RF.train<-randomForest(Absenteeism.time.in.hours~.,data=final_df[train,],mtry=5, ntree=number_of_trees[i])
  boost.train<-gbm(Absenteeism.time.in.hours~.,data=final_df[train,],distribution = "gaussian",n.trees = number_of_trees[i])

  #Calculate the prediction on both models using the test set
  RF.predict<-predict(RF.train,newdata =final_df[-train,],n.trees = number_of_trees[i] )
  Boost.predict<-predict(boost.train,newdata =final_df[-train,],n.trees = number_of_trees[i] )

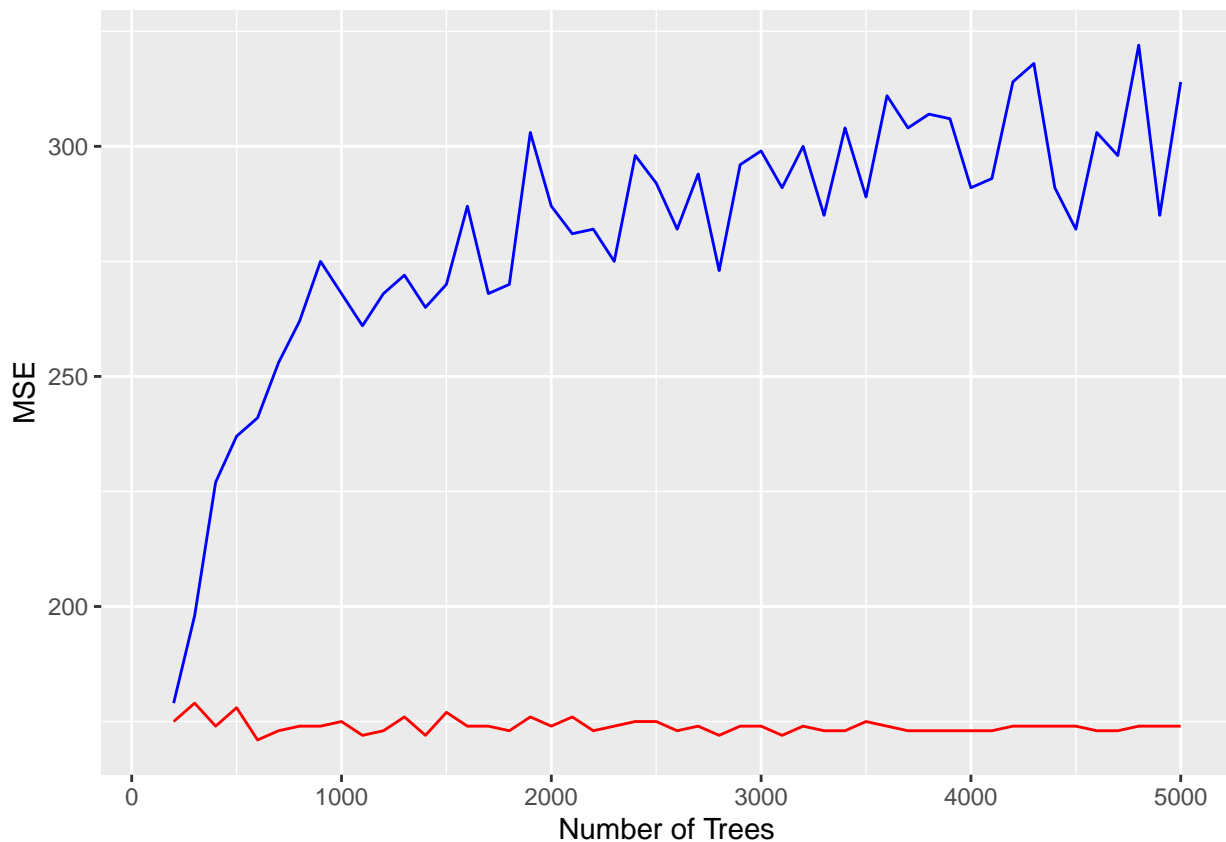
  #calculate MSE AND assign it to the MSE vector
  actual_values<-final_df[-train,21]
  RF.MSE[i]<-round(mean((RF.predict-actual_values)^2))
  Boost.MSE[i]<-round(mean((Boost.predict-actual_values)^2))
}

```

Next we plot the Test MSE for both models

```
## Warning: Removed 1 row(s) containing missing values (geom_path).
```

```
## Warning: Removed 1 row(s) containing missing values (geom_path).
```



It appears that the Random Forest model performed significantly better. Let's determine which model to select by locating the number of trees where the MSE is the smallest. #Results **3(a).Insights and findings**

Based off of the results we see that the optimal algorithm is a Random Forest with 3800 trees which has a MSE of 39. Let's see what the most important variables are for this model.

```
RF.train.optimal<-randomForest(Absenteeism.time.in.hours~.,data=final_df[train,],mtry=5, ntree=3800)
imp_variables<-importance(RF.train.optimal)
importance(RF.train.optimal)
```

##	IncNodePurity
## Reason.for.absence.	29484.16179
## Month.of.absence.	10073.53101
## Day.of.the.week.	5139.65856
## Seasons.	2437.79489
## Disciplinary.failure.	378.22627
## Education.	252.85363
## Social.drinker.	620.02468
## Social.smoker.	86.64175
## ID	2752.88974
## Transportation.expense.	2926.10017
## Distance.from.Residence.to.Work.	2788.89130
## Service.time.	1623.23537
## Age.	7489.38870
## Work.load.Average.day..	6825.93533
## Hit.target.	4030.11967
## Son.	1635.79302
## Pet.	891.75086
## Weight.	2642.86351
## Height.	2117.40353
## Body.mass.index.	1875.00647

#Conclusion

4(a). Summary of findings

It appears that the most important variables are Reason of absence, Month of absence, Day of the week, and Workload average day.

4(b). Limitations of model

Random forest model is an ensemble learning model that integrates multiple decision trees which makes it more accurate. It is also less robust which makes it a really good model. Also, training dataset with large number of trees can be costly as well. The nature of random forest which favors trees with high correlation means that smaller groups may at times be more favored than larger groups. Variable importance may not be as effective when using categorical variables²

Gradient boosting may overemphasize outliers which may lead to overfitting (when data is noisy). It is also generally harder to tune. Just like random forest, gradient boosting may require hundreds to even thousands of trees making it costly to conduct. It is also less interpretable than other models available.³

Both the random forest model and gradient boosting are very accurate model at the expense of some interpretability.

4(c). Future work

To confirm the insights and relationship mentioned in this report, further research must be done with a larger dataset. Also to find the best prediction with the highest accuracy, we need to strengthen our findings by testing the data with different parameters and also with various models.

²<https://medium.com/@aravanshad/gradient-boosting-versus-random-forest-cfa3fa8f0d80>

³http://uc-r.github.io/gbm_regression

#Citations 5(a). Citation and credits **

Martiniano, A., Ferreira, R. P., Sassi, R. J., & Affonso, C. (2012). Application of a neuro fuzzy network in prediction of absenteeism at work. In Information Systems and Technologies (CISTI), 7th Iberian Conference on (pp. 1-4). IEEE.

Acknowledgements: Professor Gary Johns for contributing to the selection of relevant research attributes. Professor Emeritus of Management Honorary Concordia University Research Chair in Management John Molson School of Business Concordia University Montreal, Quebec, Canada Adjunct Professor, OB/HR Division Sauder School of Business, University of British Columbia Vancouver, British Columbia, Canada

Dua, D. and Graff, C. (2019). UCI Machine Learning Repository [<http://archive.ics.uci.edu/ml>]. Irvine, CA: University of California, School of Information and Computer Science.

Here is a BiBTeX citation as well:

```
@misc{Dua:2019 , author = "Dua, Dheeru and Graff, Casey", year = "2017", title = "{UCI} Machine Learning Repository", url = "http://archive.ics.uci.edu/ml", institution = "University of California, Irvine, School of Information and Computer Sciences" }
```

Citations “Gradient Boosting Machines.” Gradient Boosting Machines · UC Business Analytics R Programming Guide, uc-r.github.io/gbm_regression.

Ravanshad, Abolfazl. “Gradient Boosting vs Random Forest.” Medium, Medium, 1 Aug. 2019, medium.com/@aravanshad/gradient-boosting-versus-random-forest-cfa3fa8f0d80.

```
print("Operating System:")
```

```
## [1] "Operating System:"
```

```
version
```

```
##
## platform      x86_64-apple-darwin17.0
## arch          x86_64
## os            darwin17.0
## system        x86_64, darwin17.0
## status
## major         4
## minor         0.0
## year          2020
## month         04
## day           24
## svn rev       78286
## language      R
## version.string R version 4.0.0 (2020-04-24)
## nickname      Arbor Day
```

```
print("All installed packages")
```

```
## [1] "All installed packages"
```

```
installed.packages()
```

##	Package
## arules	"arules"
## askpass	"askpass"
## assertthat	"assertthat"
## backports	"backports"
## base	"base"
## base64enc	"base64enc"
## BH	"BH"
## bitops	"bitops"
## boot	"boot"
## Boruta	"Boruta"
## brew	"brew"
## broom	"broom"
## callr	"callr"
## caret	"caret"
## caTools	"caTools"
## cellranger	"cellranger"
## class	"class"
## cli	"cli"
## clipr	"clipr"
## cluster	"cluster"
## codetools	"codetools"
## colorspace	"colorspace"
## commonmark	"commonmark"
## compare	"compare"
## compiler	"compiler"
## covr	"covr"
## crayon	"crayon"
## crosstalk	"crosstalk"
## curl	"curl"
## data.table	"data.table"
## datasets	"datasets"
## DBI	"DBI"
## dbplyr	"dbplyr"
## desc	"desc"
## devtools	"devtools"
## digest	"digest"
## dplyr	"dplyr"
## dslabs	"dslabs"
## DT	"DT"
## e1071	"e1071"
## ellipsis	"ellipsis"
## esquisse	"esquisse"
## evaluate	"evaluate"
## fansi	"fansi"
## farver	"farver"
## fastmap	"fastmap"
## FMEA	"FMEA"
## forcats	"forcats"
## foreach	"foreach"
## foreign	"foreign"
## fs	"fs"
## gbm	"gbm"
## gdata	"gdata"

## generics	"generics"
## ggcorrplot	"ggcorrplot"
## ggplot2	"ggplot2"
## ggrepel	"ggrepel"
## ggvis	"ggvis"
## gh	"gh"
## git2r	"git2r"
## glue	"glue"
## gower	"gower"
## gplots	"gplots"
## graphics	"graphics"
## grDevices	"grDevices"
## grid	"grid"
## gridExtra	"gridExtra"
## gtable	"gtable"
## gtools	"gtools"
## haven	"haven"
## highr	"highr"
## HistData	"HistData"
## hms	"hms"
## htmltools	"htmltools"
## htmlwidgets	"htmlwidgets"
## httpuv	"httpuv"
## httr	"httr"
## igraph	"igraph"
## ini	"ini"
## ipred	"ipred"
## irlba	"irlba"
## isoband	"isoband"
## iterators	"iterators"
## jsonlite	"jsonlite"
## kableExtra	"kableExtra"
## KernSmooth	"KernSmooth"
## kknn	"kknn"
## knitr	"knitr"
## labeling	"labeling"
## Lahman	"Lahman"
## later	"later"
## lattice	"lattice"
## lava	"lava"
## lazyeval	"lazyeval"
## lifecycle	"lifecycle"
## lubridate	"lubridate"
## magrittr	"magrittr"
## markdown	"markdown"
## MASS	"MASS"
## Matrix	"Matrix"
## memoise	"memoise"
## methods	"methods"
## mgcv	"mgcv"
## mime	"mime"
## miniUI	"miniUI"
## MLmetrics	"MLmetrics"
## ModelMetrics	"ModelMetrics"

## modelr	"modelr"
## munsell	"munsell"
## nlme	"nlme"
## nnet	"nnet"
## numDeriv	"numDeriv"
## openssl	"openssl"
## parallel	"parallel"
## pdftools	"pdftools"
## pillar	"pillar"
## pkgbuild	"pkgbuild"
## pkgconfig	"pkgconfig"
## pkgload	"pkgload"
## plogr	"plogr"
## plyr	"plyr"
## praise	"praise"
## prettyunits	"prettyunits"
## pROC	"pROC"
## processx	"processx"
## prodlim	"prodlim"
## progress	"progress"
## promises	"promises"
## proxy	"proxy"
## ps	"ps"
## purrr	"purrr"
## qpdf	"qpdf"
## R6	"R6"
## randomForest	"randomForest"
## ranger	"ranger"
## raster	"raster"
## rcmdcheck	"rcmdcheck"
## RColorBrewer	"RColorBrewer"
## Rcpp	"Rcpp"
## RcppEigen	"RcppEigen"
## RcppProgress	"RcppProgress"
## readr	"readr"
## readxl	"readxl"
## recipes	"recipes"
## recommenderlab	"recommenderlab"
## ecosystem	"ecosystem"
## registry	"registry"
## rematch	"rematch"
## rematch2	"rematch2"
## remotes	"remotes"
## reprex	"reprex"
## reshape	"reshape"
## reshape2	"reshape2"
## rex	"rex"
## rlang	"rlang"
## rmarkdown	"rmarkdown"
## ROCR	"ROCR"
## roxygen2	"roxygen2"
## rpart	"rpart"
## rprojroot	"rprojroot"
## rstudioapi	"rstudioapi"

```

## rversions      "rversions"
## rvest          "rvest"
## scales         "scales"
## selectr        "selectr"
## sessioninfo    "sessioninfo"
## shiny          "shiny"
## shinyWidgets   "shinyWidgets"
## sourcetools     "sourcetools"
## sp             "sp"
## spatial        "spatial"
## splines        "splines"
## SQUAREM        "SQUAREM"
## stats          "stats"
## stats4         "stats4"
## stringi        "stringi"
## stringr        "stringr"
## survival       "survival"
## sys            "sys"
## tcltk          "tcltk"
## testthat       "testthat"
## tibble         "tibble"
## tidyr          "tidyr"
## tidyselect     "tidyselect"
## tidyverse      "tidyverse"
## timeDate       "timeDate"
## tinytex        "tinytex"
## titanic        "titanic"
## tools          "tools"
## tree           "tree"
## usethis        "usethis"
## utf8           "utf8"
## utils          "utils"
## vctrs          "vctrs"
## viridisLite    "viridisLite"
## webshot        "webshot"
## whisker        "whisker"
## withr          "withr"
## xfun           "xfun"
## xml2           "xml2"
## xopen          "xopen"
## xtable         "xtable"
## yaml          "yaml"
##               LibPath
## arules         "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## askpass        "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## assertthat     "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## backports      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## base           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## base64enc      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## BH             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## bitops         "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## boot           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## Boruta         "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## brew           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"

```

```

## broom                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## callr                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## caret                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## caTools              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## cellranger           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## class                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## cli                  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## clipr                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## cluster              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## codetools            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## colorspace           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## commonmark           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## compare              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## compiler             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## covr                 "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## crayon               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## crosstalk            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## curl                 "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## data.table           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## datasets             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## DBI                  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## dbplyr               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## desc                 "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## devtools             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## digest               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## dplyr                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## dslabs               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## DT                   "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## e1071                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ellipsis             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## esquisse             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## evaluate             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## fansi                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## farver               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## fastmap              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## FMEA                 "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## forcats              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## foreach              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## foreign              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## fs                   "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## gbm                  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## gdata                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## generics             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ggcorrplot           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ggplot2              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ggrepel              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ggvis                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## gh                   "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## git2r                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## glue                 "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## gower                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## gplots               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## graphics             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## grDevices            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"

```

```

## grid                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## gridExtra           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## gtable              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## gtools              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## haven               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## highr               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## HistData            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## hms                 "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## htmltools           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## htmlwidgets         "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## httpuv              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## httr                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## igraph              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ini                 "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ipred               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## irlba               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## isoband             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## iterators           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## jsonlite            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## kableExtra          "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## KernSmooth          "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## kkn                 "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## knitr               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## labeling            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## Lahman              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## later               "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## lattice             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## lava                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## lazyeval            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## lifecycle           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## lubridate           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## magrittr            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## markdown            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## MASS                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## Matrix              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## memoise             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## methods             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## mgcv                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## mime                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## miniUI              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## MLmetrics           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ModelMetrics        "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## modelr              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## munsell             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## nlme                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## nnet                "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## numDeriv            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## openssl             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## parallel            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## pdftools            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## pillar              "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## pkgbuild            "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## pkgconfig           "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## pkgload             "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"

```



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## plogr      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## plyr      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## praise    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## prettyunits "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## pROC      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## processx  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## prodlim   "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## progress  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## promises  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## proxy     "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ps        "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## purrr     "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## qpdf      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## R6        "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## randomForest "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ranger     "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## raster     "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rcmdcheck  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## RColorBrewer "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## Rcpp       "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## RcppEigen   "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## RcppProgress "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## readr      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## readxl     "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## recipes    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## recommenderlab "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## recosystem  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## registry   "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rematch    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rematch2    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## remotes    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## reprex     "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## reshape    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## reshape2    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rex        "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rlang      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rmarkdown  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## ROCR       "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## roxygen2   "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rpart      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rprojroot  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rstudioapi "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rversions  "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## rvest      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## scales     "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## selectr    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## sessioninfo "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## shiny      "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## shinyWidgets "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## sourcetools "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## sp         "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## spatial    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## splines    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"
## SQUAREM    "/Library/Frameworks/R.framework/Versions/4.0/Resources/library"

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## stats	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## stats4	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## stringi	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## stringr	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## survival	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## sys	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## tcltk	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## testthat	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## tibble	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## tidyr	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## tidyselect	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## tidyverse	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## timeDate	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## tinytex	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## titanic	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## tools	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## tree	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## usethis	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## utf8	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## utils	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## vctrs	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## viridisLite	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## webshot	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## whisker	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## withr	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## xfun	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## xml2	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## xopen	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## xtable	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
## yaml	"/Library/Frameworks/R.framework/Versions/4.0/Resources/library"	
##	Version	Priority
## arules	"1.6-6"	NA
## askpass	"1.1"	NA
## assertthat	"0.2.1"	NA
## backports	"1.1.6"	NA
## base	"4.0.0"	"base"
## base64enc	"0.1-3"	NA
## BH	"1.72.0-3"	NA
## bitops	"1.0-6"	NA
## boot	"1.3-24"	"recommended"
## Boruta	"7.0.0"	NA
## brew	"1.0-6"	NA
## broom	"0.5.6"	NA
## callr	"3.4.3"	NA
## caret	"6.0-86"	NA
## caTools	"1.18.0"	NA
## cellranger	"1.1.0"	NA
## class	"7.3-16"	"recommended"
## cli	"2.0.2"	NA
## clipr	"0.7.0"	NA
## cluster	"2.1.0"	"recommended"
## codetools	"0.2-16"	"recommended"
## colorspace	"1.4-1"	NA
## commonmark	"1.7"	NA

## compare	"0.2-6"	NA
## compiler	"4.0.0"	"base"
## covr	"3.5.0"	NA
## crayon	"1.3.4"	NA
## crosstalk	"1.1.0.1"	NA
## curl	"4.3"	NA
## data.table	"1.12.8"	NA
## datasets	"4.0.0"	"base"
## DBI	"1.1.0"	NA
## dbplyr	"1.4.3"	NA
## desc	"1.2.0"	NA
## devtools	"2.3.0"	NA
## digest	"0.6.25"	NA
## dplyr	"0.8.5"	NA
## dslabs	"0.7.3"	NA
## DT	"0.13"	NA
## e1071	"1.7-3"	NA
## ellipsis	"0.3.0"	NA
## esquisse	"0.3.0"	NA
## evaluate	"0.14"	NA
## fansi	"0.4.1"	NA
## farver	"2.0.3"	NA
## fastmap	"1.0.1"	NA
## FMEA	"0.1.0"	NA
## forcats	"0.5.0"	NA
## foreach	"1.5.0"	NA
## foreign	"0.8-78"	"recommended"
## fs	"1.4.1"	NA
## gbm	"2.1.5"	NA
## gdata	"2.18.0"	NA
## generics	"0.0.2"	NA
## ggcorrplot	"0.1.3"	NA
## ggplot2	"3.3.0"	NA
## ggrepel	"0.8.2"	NA
## ggvis	"0.4.4.9000"	NA
## gh	"1.1.0"	NA
## git2r	"0.27.1"	NA
## glue	"1.4.0"	NA
## gower	"0.2.1"	NA
## gplots	"3.0.3"	NA
## graphics	"4.0.0"	"base"
## grDevices	"4.0.0"	"base"
## grid	"4.0.0"	"base"
## gridExtra	"2.3"	NA
## gtable	"0.3.0"	NA
## gtools	"3.8.2"	NA
## haven	"2.2.0"	NA
## highr	"0.8"	NA
## HistData	"0.8-6"	NA
## hms	"0.5.3"	NA
## htmltools	"0.4.0"	NA
## htmlwidgets	"1.5.1"	NA
## httpuv	"1.5.3.1"	NA
## httr	"1.4.1"	NA

## igraph	"1.2.5"	NA
## ini	"0.3.1"	NA
## ipred	"0.9-9"	NA
## irlba	"2.3.3"	NA
## isoband	"0.2.1"	NA
## iterators	"1.0.12"	NA
## jsonlite	"1.6.1"	NA
## kableExtra	"1.1.0"	NA
## KernSmooth	"2.23-16"	"recommended"
## kknn	"1.3.1"	NA
## knitr	"1.28"	NA
## labeling	"0.3"	NA
## Lahman	"3.0-2"	NA
## later	"1.0.0"	NA
## lattice	"0.20-41"	"recommended"
## lava	"1.6.7"	NA
## lazyeval	"0.2.2"	NA
## lifecycle	"0.2.0"	NA
## lubridate	"1.7.8"	NA
## magrittr	"1.5"	NA
## markdown	"1.1"	NA
## MASS	"7.3-51.5"	"recommended"
## Matrix	"1.2-18"	"recommended"
## memoise	"1.1.0"	NA
## methods	"4.0.0"	"base"
## mgcv	"1.8-31"	"recommended"
## mime	"0.9"	NA
## miniUI	"0.1.1.1"	NA
## MLmetrics	"1.1.1"	NA
## ModelMetrics	"1.2.2.2"	NA
## modelr	"0.1.7"	NA
## munsell	"0.5.0"	NA
## nlme	"3.1-147"	"recommended"
## nnet	"7.3-13"	"recommended"
## numDeriv	"2016.8-1.1"	NA
## openssl	"1.4.1"	NA
## parallel	"4.0.0"	"base"
## pdftools	"2.3"	NA
## pillar	"1.4.4"	NA
## pkgbuild	"1.0.8"	NA
## pkgconfig	"2.0.3"	NA
## pkgload	"1.0.2"	NA
## plogr	"0.2.0"	NA
## plyr	"1.8.6"	NA
## praise	"1.0.0"	NA
## prettyunits	"1.1.1"	NA
## pROC	"1.16.2"	NA
## processx	"3.4.2"	NA
## prodlim	"2019.11.13"	NA
## progress	"1.2.2"	NA
## promises	"1.1.0"	NA
## proxy	"0.4-24"	NA
## ps	"1.3.3"	NA
## purrr	"0.3.4"	NA

## qpdf	"1.1"	NA
## R6	"2.4.1"	NA
## randomForest	"4.6-14"	NA
## ranger	"0.12.1"	NA
## raster	"3.1-5"	NA
## rcmdcheck	"1.3.3"	NA
## RColorBrewer	"1.1-2"	NA
## Rcpp	"1.0.4.6"	NA
## RcppEigen	"0.3.3.7.0"	NA
## RcppProgress	"0.4.2"	NA
## readr	"1.3.1"	NA
## readxl	"1.3.1"	NA
## recipes	"0.1.12"	NA
## recommenderlab	"0.2-5"	NA
## recosystem	"0.4.3"	NA
## registry	"0.5-1"	NA
## rematch	"1.0.1"	NA
## rematch2	"2.1.2"	NA
## remotes	"2.1.1"	NA
## reprex	"0.3.0"	NA
## reshape	"0.8.8"	NA
## reshape2	"1.4.4"	NA
## rex	"1.2.0"	NA
## rlang	"0.4.6"	NA
## rmarkdown	"2.1.5"	NA
## ROCR	"1.0-11"	NA
## roxygen2	"7.1.0"	NA
## rpart	"4.1-15"	"recommended"
## rprojroot	"1.3-2"	NA
## rstudioapi	"0.11"	NA
## rversions	"2.0.2"	NA
## rvest	"0.3.5"	NA
## scales	"1.1.1"	NA
## selectr	"0.4-2"	NA
## sessioninfo	"1.1.1"	NA
## shiny	"1.4.0.2"	NA
## shinyWidgets	"0.5.2"	NA
## sourcetools	"0.1.7"	NA
## sp	"1.4-2"	NA
## spatial	"7.3-11"	"recommended"
## splines	"4.0.0"	"base"
## SQUAREM	"2020.2"	NA
## stats	"4.0.0"	"base"
## stats4	"4.0.0"	"base"
## stringi	"1.4.6"	NA
## stringr	"1.4.0"	NA
## survival	"3.1-12"	"recommended"
## sys	"3.3"	NA
## tcltk	"4.0.0"	"base"
## testthat	"2.3.2"	NA
## tibble	"3.0.1"	NA
## tidyr	"1.0.3"	NA
## tidyselect	"1.1.0"	NA
## tidyverse	"1.3.0"	NA

```

## timeDate      "3043.102"    NA
## tinytex       "0.23"        NA
## titanic       "0.1.0.9000"  NA
## tools         "4.0.0"        "base"
## tree          "1.0-40"       NA
## usethis       "1.6.1"        NA
## utf8          "1.1.4"        NA
## utils         "4.0.0"        "base"
## vctrs         "0.3.0"        NA
## viridisLite   "0.3.0"        NA
## webshot       "0.5.2"        NA
## whisker       "0.4"          NA
## withr         "2.2.0"        NA
## xfun          "0.13"         NA
## xml2          "1.3.2"        NA
## xopen         "1.0.0"        NA
## xtable        "1.8-4"        NA
## yaml          "2.2.1"        NA
## Depends
## arules        "R (>= 3.4.0), Matrix (>= 1.2-0)"
## askpass       NA
## assertthat    NA
## backports     "R (>= 3.0.0)"
## base          NA
## base64enc     "R (>= 2.9.0)"
## BH           NA
## bitops        NA
## boot          "R (>= 3.0.0), graphics, stats"
## Boruta        NA
## brew          NA
## broom         "R (>= 3.1)"
## callr         NA
## caret         "R (>= 3.2.0), lattice (>= 0.20), ggplot2"
## caTools       "R (>= 3.6.0)"
## cellranger    "R (>= 3.0.0)"
## class         "R (>= 3.0.0), stats, utils"
## cli           "R (>= 2.10)"
## clipr         NA
## cluster       "R (>= 3.3.0)"
## codetools     "R (>= 2.1)"
## colorspace    "R (>= 3.0.0), methods"
## commonmark    NA
## compare       NA
## compiler      NA
## covr          "R (>= 3.1.0), methods"
## crayon        NA
## crosstalk     NA
## curl          "R (>= 3.0.0)"
## data.table    "R (>= 3.1.0)"
## datasets      NA
## DBI           "methods, R (>= 3.0.0)"
## dbplyr        "R (>= 3.1)"
## desc          "R (>= 3.1.0)"
## devtools      "R (>= 3.0.2), usethis (>= 1.6.0)"

```

```

## digest      "R (>= 3.1.0)"
## dplyr       "R (>= 3.2.0)"
## dslabs      "R (>= 3.1.2)"
## DT          NA
## e1071       NA
## ellipsis    "R (>= 3.2)"
## esquisse    NA
## evaluate    "R (>= 3.0.2)"
## fansi       "R (>= 3.1.0)"
## farver      NA
## fastmap     NA
## FMEA        NA
## forcats     "R (>= 3.2)"
## foreach     "R (>= 2.5.0)"
## foreign     "R (>= 4.0.0)"
## fs          "R (>= 3.1)"
## gbm         "R (>= 2.9.0)"
## gdata       "R (>= 2.3.0)"
## generics    "R (>= 3.1)"
## ggcorrplot  "ggplot2"
## ggplot2     "R (>= 3.2)"
## ggrepel     "R (>= 3.0.0), ggplot2 (>= 2.2.0)"
## ggvis       "R (>= 3.0)"
## gh          NA
## git2r       "R (>= 3.1)"
## glue        "R (>= 3.1)"
## gower       NA
## gplots      "R (>= 3.0)"
## graphics    NA
## grDevices    NA
## grid         NA
## gridExtra    NA
## gtable      "R (>= 3.0)"
## gtools       "methods, stats, utils"
## haven       "R (>= 3.2)"
## highr       "R (>= 3.2.3)"
## HistData     NA
## hms          NA
## htmltools    "R (>= 2.14.1)"
## htmlwidgets NA
## httpuv      "R (>= 2.15.1)"
## httr        "R (>= 3.2)"
## igraph       "methods"
## ini         NA
## ipred        "R (>= 2.10)"
## irlba        "Matrix"
## isoband      NA
## iterators    "R (>= 2.5.0), utils"
## jsonlite     "methods"
## kableExtra   "R (>= 3.1.0)"
## KernSmooth   "R (>= 2.5.0), stats"
## kkn         "R (>= 2.10)"
## knitr        "R (>= 3.2.3)"
## labeling     NA

```

```

## Lahman          "R (>= 2.10)"
## later           NA
## lattice         "R (>= 3.0.0)"
## lava            "R (>= 3.0)"
## lazyeval        "R (>= 3.1.0)"
## lifecycle       "R (>= 3.2)"
## lubridate       "methods, R (>= 3.2)"
## magrittr        NA
## markdown        "R (>= 2.11.1)"
## MASS            "R (>= 3.1.0), grDevices, graphics, stats, utils"
## Matrix          "R (>= 3.2.0)"
## memoise         NA
## methods         NA
## mgcv            "R (>= 2.14.0), nlme (>= 3.1-64)"
## mime            NA
## miniUI          NA
## MLmetrics       "R (>= 2.10)"
## ModelMetrics    "R (>= 3.2.2)"
## modelr          "R (>= 3.2)"
## munsell         NA
## nlme            "R (>= 3.4.0)"
## nnet            "R (>= 3.0.0), stats, utils"
## numDeriv        "R (>= 2.11.1)"
## openssl         NA
## parallel        NA
## pdftools        NA
## pillar          NA
## pkgbuild        "R (>= 3.1)"
## pkgconfig       NA
## pkgload         NA
## plogr           NA
## plyr            "R (>= 3.1.0)"
## praise          NA
## prettyunits     NA
## pROC            "R (>= 2.14)"
## processx        NA
## prodlim         "R (>= 2.9.0)"
## progress        NA
## promises        NA
## proxy           "R (>= 3.4.0)"
## ps              "R (>= 3.1)"
## purrr           "R (>= 3.2)"
## qpdf           NA
## R6              "R (>= 3.0)"
## randomForest    "R (>= 3.2.2), stats"
## ranger          "R (>= 3.1)"
## raster          "sp (>= 1.2-0), R (>= 3.0.0)"
## rcmdcheck       NA
## RColorBrewer    "R (>= 2.0.0)"
## Rcpp            NA
## RcppEigen       "R (>= 2.15.1)"
## RcppProgress    NA
## readr           "R (>= 3.1)"
## readxl          NA

```



```

## recipes          "R (>= 3.1), dplyr"
## recommenderlab   "R (>= 2.10.0), Matrix, arules, proxy, registry"
## recosystem       "R (>= 3.3.0), methods"
## registry         "R (>= 2.6.0)"
## rematch          NA
## rematch2         NA
## remotes          "R (>= 3.0.0)"
## reprex           "R (>= 3.1)"
## reshape          "R (>= 2.6.1)"
## reshape2         "R (>= 3.1)"
## rex              NA
## rlang            "R (>= 3.2.0)"
## rmarkdown        "R (>= 3.0)"
## ROCR             "R (>= 3.6)"
## roxygen2         "R (>= 3.2)"
## rpart            "R (>= 2.15.0), graphics, stats, grDevices"
## rprojroot        "R (>= 3.0.0)"
## rstudioapi       NA
## rversions        NA
## rvest            "R (>= 3.2), xml2"
## scales           "R (>= 3.2)"
## selectr          "R (>= 3.0)"
## sessioninfo      NA
## shiny            "R (>= 3.0.2), methods"
## shinyWidgets     "R (>= 3.1.0)"
## sourcetools      "R (>= 3.0.2)"
## sp               "R (>= 3.0.0), methods"
## spatial          "R (>= 3.0.0), graphics, stats, utils"
## splines          NA
## SQUAREM          "R (>= 3.0)"
## stats            NA
## stats4           NA
## stringi          "R (>= 2.14)"
## stringr          "R (>= 3.1)"
## survival         "R (>= 3.4.0)"
## sys              NA
## tcltk            NA
## testthat         "R (>= 3.1)"
## tibble           "R (>= 3.1.0)"
## tidyr            "R (>= 3.1)"
## tidyselect       "R (>= 3.2)"
## tidyverse        "R (>= 3.2)"
## timeDate         "R (>= 2.15.1), graphics, utils, stats, methods"
## tinytex          NA
## titanic          "R (>= 3.1.2)"
## tools            NA
## tree             "R (>= 3.6.0), grDevices, graphics, stats"
## usethis          "R (>= 3.2)"
## utf8             "R (>= 2.10)"
## utils            NA
## vctrs            "R (>= 3.2)"
## viridisLite      "R (>= 2.10)"
## webshot          "R (>= 3.0)"
## whisker          NA

```

```

## withr      "R (>= 3.2.0)"
## xfun       NA
## xml2       "R (>= 3.1.0)"
## xopen      "R (>= 3.1)"
## xtable     "R (>= 2.10.0)"
## yaml       NA
##            Imports
## arules     "stats, methods, graphics, utils"
## askpass    "sys (>= 2.1)"
## assertthat "tools"
## backports  "utils"
## base       NA
## base64enc  NA
## BH         NA
## bitops     NA
## boot       NA
## Boruta     "ranger"
## brew       NA
## broom      "backports, dplyr, generics (>= 0.0.2), methods, nlme, purrr, \nreshape2, stringr, tibble"
## callr      "processx (>= 3.4.0), R6, utils"
## caret      "foreach, methods, plyr, ModelMetrics (>= 1.2.2.2), nlme, \nreshape2, stats, stats4, utils"
## caTools    "bitops"
## cellranger "rematch, tibble"
## class      "MASS"
## cli        "assertthat, crayon (>= 1.3.4), glue, methods, utils, fansi"
## clipr      "utils"
## cluster    "graphics, grDevices, stats, utils"
## codetools  NA
## colorspace "graphics, grDevices, stats"
## commonmark NA
## compare    NA
## compiler   NA
## covr       "digest, stats, utils, jsonlite, rex, http, crayon, withr (>= \n1.0.2), yaml"
## crayon     "grDevices, methods, utils"
## crosstalk  "htmltools (>= 0.3.6), jsonlite, lazyeval, R6"
## curl       NA
## data.table "methods"
## datasets   NA
## DBI        NA
## dbplyr     "assertthat (>= 0.2.0), DBI (>= 1.0.0), dplyr (>= 0.8.0), glue\n(>= 1.2.0), lifecycle"
## desc       "assertthat, utils, R6, crayon, rprojroot"
## devtools   "callr (>= 3.4.3), cli (>= 2.0.2), covr (>= 3.5.0), crayon (>= \n1.3.4), desc (>= 1.2.0)"
## digest     "utils"
## dplyr      "ellipsis, assertthat (>= 0.2.0), glue (>= 1.3.0), magrittr (>= \n1.5), methods, pkgconfig"
## dslabs     "ggplot2"
## DT         "htmltools (>= 0.3.6), htmlwidgets (>= 1.3), jsonlite (>= \n0.9.16), magrittr, crosstalk"
## e1071      "graphics, grDevices, class, stats, methods, utils"
## ellipsis   "rlang (>= 0.3.0)"
## esquisse   "miniUI, rstudioapi, shiny (>= 1.0.0), htmltools, jsonlite, \nshinyWidgets (>= 0.4.1), utils"
## evaluate   "methods"
## fansi      NA
## farver     NA
## fastmap    NA
## FMEA       "ggplot2, dplyr, ggrepel, magrittr"

```

```

## forcats      "ellipsis, magrittr, rlang, tibble"
## foreach     "codetools, utils, iterators"
## foreign      "methods, utils, stats"
## fs           "methods"
## gbm          "gridExtra, lattice, parallel, survival"
## gdata        "gtools, stats, methods, utils"
## generics     "methods"
## ggcorrplot   "reshape2, stats"
## ggplot2      "digest, glue, grDevices, grid, gtable (>= 0.1.1), isoband,\nMASS, mgcv, rlang (>= 0.1.1)"
## ggrepel      "grid, Rcpp, scales (>= 0.3.0)"
## ggvis        "assertthat, jsonlite (>= 0.9.11), shiny (>= 0.11.1), magrittr,\nndplyr (>= 0.5.0), lazyeval"
## gh           "cli, ini, jsonlite, httr (>= 1.2)"
## git2r        "graphics, utils"
## glue         "methods"
## gower        NA
## gplots       "gtools, gdata, stats, caTools, KernSmooth"
## graphics     "grDevices"
## grDevices    NA
## grid          "grDevices, utils"
## gridExtra    "gtable, grid, grDevices, graphics, utils"
## gtable       "grid"
## gtools       NA
## haven        "forcats (>= 0.2.0), hms, Rcpp (>= 0.11.4), readr (>= 0.1.0),\nrlang (>= 0.4.0), tibble"
## highr        NA
## HistData     NA
## hms          "methods, pkgconfig, rlang, vctrs (>= 0.2.1)"
## htmltools    "utils, digest, Rcpp, rlang"
## htmlwidgets  "grDevices, htmltools (>= 0.3), jsonlite (>= 0.9.16), yaml"
## httpuv       "Rcpp (>= 0.11.0), utils, R6, promises, later (>= 0.8.0)"
## httr         "curl (>= 3.0.0), jsonlite, mime, openssl (>= 0.8), R6"
## igraph       "graphics, grDevices, magrittr, Matrix, pkgconfig (>= 2.0.0),\nstats, utils"
## ini          NA
## ipred        "rpart (>= 3.1-8), MASS, survival, nnet, class, prodlim"
## irlba        "stats, methods"
## isoband      "Rcpp, grid, utils"
## iterators    NA
## jsonlite     NA
## kableExtra   "knitr (>= 1.16), magrittr, stringr (>= 1.0), xml2 (>= 1.1.1),\nrrvest, rmarkdown (>= 1.1.1)"
## KernSmooth   NA
## kkn          "igraph (>= 1.0), Matrix, stats, graphics"
## knitr        "evaluate (>= 0.10), highr, markdown, stringr (>= 0.6), yaml\n(>= 2.1.19), methods, xfun"
## labeling     NA
## Lahman       NA
## later        "Rcpp (>= 0.12.9), rlang"
## lattice      "grid, grDevices, graphics, stats, utils"
## lava         "grDevices, graphics, methods, numDeriv, stats, survival,\nSQUAREM, utils"
## lazyeval     NA
## lifecycle    "glue, rlang (>= 0.4.0)"
## lubridate    "generics, Rcpp (>= 0.12.13)"
## magrittr     NA
## markdown     "utils, xfun, mime (>= 0.3)"
## MASS         "methods"
## Matrix       "methods, graphics, grid, stats, utils, lattice"
## memoise      "digest (>= 0.6.3)"

```

```

## methods      "utils, stats"
## mgcv          "methods, stats, graphics, Matrix, splines, utils"
## mime         "tools"
## miniUI       "shiny (>= 0.13), htmltools (>= 0.3), utils"
## MLmetrics    "stats, utils, ROCR"
## ModelMetrics "Rcpp, data.table"
## modelr       "broom, dplyr, magrittr, purrr (>= 0.2.2), rlang (>= 0.2.0), \ntibble, tidyr (>= 0.8.0)"
## munsell      "colorspace, methods"
## nlme         "graphics, stats, utils, lattice"
## nnet         NA
## numDeriv     NA
## openssl     "askpass"
## parallel     "tools, compiler"
## pdftools     "Rcpp (>= 0.12.12), qpdf"
## pillar       "cli, crayon (>= 1.3.4), fansi, rlang (>= 0.3.0), utf8 (>= \n1.1.0), vctrs (>= 0.2.0)"
## pkgbuild     "callr (>= 3.2.0), cli, crayon, desc, prettyunits, R6, \nrprojroot, withr (>= 2.1.2)"
## pkgconfig    "utils"
## pkgload      "desc, methods, pkgbuild, rlang, rprojroot, rstudioapi, utils, \nwithr"
## plogr        NA
## plyr         "Rcpp (>= 0.11.0)"
## praise       NA
## prettyunits  NA
## pROC         "methods, plyr, Rcpp (>= 0.11.1)"
## processx     "ps (>= 1.2.0), R6, utils"
## prodlim      "Rcpp (>= 0.11.5), stats, grDevices, graphics, survival, \nKernSmooth, lava"
## progress     "hms, prettyunits, R6, crayon"
## promises     "R6, Rcpp, later, rlang, stats, magrittr"
## proxy        "stats, utils"
## ps           "utils"
## purrr        "magrittr (>= 1.5), rlang (>= 0.3.1)"
## qpdf         "Rcpp, askpass, curl"
## R6           NA
## randomForest NA
## ranger       "Rcpp (>= 0.11.2), Matrix"
## raster       "Rcpp, methods"
## rcmdcheck    "callr (>= 3.1.1.9000), cli (>= 1.1.0), crayon, desc (>= \n1.2.0), digest, pkgbuild, p
## RColorBrewer NA
## Rcpp         "methods, utils"
## RcppEigen    "Matrix (>= 1.1-0), Rcpp (>= 0.11.0), stats, utils"
## RcppProgress NA
## readr        "Rcpp (>= 0.12.0.5), tibble, hms (>= 0.4.1), R6, clipr, crayon, \nmethods"
## readxl       "cellranger, Rcpp (>= 0.12.18), tibble (>= 1.3.1), utils"
## recipes      "generics, glue, gower, ipred, lubridate, magrittr, Matrix, \npurrr (>= 0.2.3), rlang
## recommenderlab "methods, utils, stats, irlba, recosystem"
## recosystem   "Rcpp (>= 0.11.0)"
## registry     "utils"
## rematch      NA
## rematch2     "tibble"
## remotes      "methods, stats, tools, utils"
## reprex       "callr (>= 2.0.0), clipr (>= 0.4.0), fs, rlang, rmarkdown, \nutils, whisker, withr"
## reshape     "plyr"
## reshape2     "plyr (>= 1.8.1), Rcpp, stringr"
## rex          "lazyeval"
## rlang        NA

```

```

## rmarkdown      "tools, utils, knitr (>= 1.22), yaml (>= 2.1.19), htmltools (>=\n0.3.5), evaluate (>=
## ROCR           "methods, graphics, grDevices, gplots, stats"
## roxygen2       "brew, commonmark, desc (>= 1.2.0), digest, knitr, methods,\npkgload (>= 1.0.2), purrr
## rpart          NA
## rprojroot      "backports"
## rstudioapi     NA
## rversions      "curl, utils, xml2 (>= 1.0.0)"
## rvest          "httr (>= 0.5), magrittr, selectr"
## scales         "farver (>= 2.0.3), labeling, lifecycle, munsell (>= 0.5), R6,\nRColorBrewer, viridis
## selectr        "methods, stringr, R6"
## sessioninfo    "cli, tools, utils, withr"
## shiny          "utils, grDevices, httpuv (>= 1.5.2), mime (>= 0.3), jsonlite\n(>= 0.9.16), xtable, d
## shinyWidgets   "shiny (>= 0.14), htmltools, jsonlite, grDevices, scales"
## sourcetools    NA
## sp             "utils, stats, graphics, grDevices, lattice, grid"
## spatial        NA
## splines        "graphics, stats"
## SQUAREM        NA
## stats          "utils, grDevices, graphics"
## stats4         "graphics, methods, stats"
## stringi        "tools, utils, stats"
## stringr        "glue (>= 1.2.0), magrittr, stringi (>= 1.1.7)"
## survival       "graphics, Matrix, methods, splines, stats, utils"
## sys            NA
## tcltk          "utils"
## testthat       "cli, crayon (>= 1.3.4), digest, ellipsis, evaluate, magrittr,\nmethods, pkgload, pra
## tibble         "cli, crayon (>= 1.3.4), ellipsis (>= 0.2.0), fansi (>= 0.4.0),\nlifecycle (>= 0.2.0)
## tidyr          "dplyr (>= 0.8.2), ellipsis (>= 0.1.0), glue, magrittr, purrr,\nRcpp, rlang, stringi,
## tidyselect     "ellipsis, glue (>= 1.3.0), purrr (>= 0.3.2), rlang (>= 0.4.6),\nvctrs (>= 0.2.2)"
## tidyverse      "broom (>= 0.5.2), cli (>= 1.1.0), crayon (>= 1.3.4), dbplyr\n(>= 1.4.2), dplyr (>= 0
## timeDate       NA
## tinytex        "xfun (>= 0.5)"
## titanic        NA
## tools          NA
## tree           NA
## usethis        "clipr (>= 0.3.0), cli, crayon, curl (>= 2.7), desc, fs (>=\n1.3.0), gh (>= 1.1.0), g
## utf8           NA
## utils          NA
## vctrs          "ellipsis (>= 0.2.0), digest, glue, rlang (>= 0.4.5)"
## viridisLite    NA
## webshot        "magrittr, jsonlite, callr"
## whisker        NA
## withr          "graphics, grDevices, stats"
## xfun           "stats, tools"
## xml2           "methods"
## xopen          "processx"
## xtable         "stats, utils"
## yaml          NA
##               LinkingTo
## arules         NA
## askpass        NA
## assertthat     NA
## backports      NA
## base           NA

```

## base64enc	NA
## BH	NA
## bitops	NA
## boot	NA
## Boruta	NA
## brew	NA
## broom	NA
## callr	NA
## caret	NA
## caTools	NA
## cellranger	NA
## class	NA
## cli	NA
## clipr	NA
## cluster	NA
## codetools	NA
## colorspace	NA
## commonmark	NA
## compare	NA
## compiler	NA
## covr	NA
## crayon	NA
## crosstalk	NA
## curl	NA
## data.table	NA
## datasets	NA
## DBI	NA
## dbplyr	NA
## desc	NA
## devtools	NA
## digest	NA
## dplyr	"BH, plogr (>= 0.2.0), Rcpp (>= 1.0.1)"
## dslabs	NA
## DT	NA
## e1071	NA
## ellipsis	NA
## esquisse	NA
## evaluate	NA
## fansi	NA
## farver	NA
## fastmap	NA
## FMEA	NA
## forcats	NA
## foreach	NA
## foreign	NA
## fs	NA
## gbm	NA
## gdata	NA
## generics	NA
## ggcorrplot	NA
## ggplot2	NA
## ggrepel	"Rcpp"
## ggvis	NA
## gh	NA

## git2r	NA
## glue	NA
## gower	NA
## gplots	NA
## graphics	NA
## grDevices	NA
## grid	NA
## gridExtra	NA
## gtable	NA
## gtools	NA
## haven	"Rcpp"
## highr	NA
## HistData	NA
## hms	NA
## htmltools	"Rcpp"
## htmlwidgets	NA
## httpuv	"Rcpp, BH, later"
## httr	NA
## igraph	NA
## ini	NA
## ipred	NA
## irlba	"Matrix"
## isoband	"Rcpp, testthat"
## iterators	NA
## jsonlite	NA
## kableExtra	NA
## KernSmooth	NA
## kkn	NA
## knitr	NA
## labeling	NA
## Lahman	NA
## later	"Rcpp, BH"
## lattice	NA
## lava	NA
## lazyeval	NA
## lifecycle	NA
## lubridate	"Rcpp"
## magrittr	NA
## markdown	NA
## MASS	NA
## Matrix	NA
## memoise	NA
## methods	NA
## mgcv	NA
## mime	NA
## miniUI	NA
## MLmetrics	NA
## ModelMetrics	"Rcpp"
## modelr	NA
## munsell	NA
## nlme	NA
## nnet	NA
## numDeriv	NA
## openssl	NA

## parallel	NA
## pdftools	"Rcpp"
## pillar	NA
## pkgbuild	NA
## pkgconfig	NA
## pkgload	NA
## plogr	NA
## plyr	"Rcpp"
## praise	NA
## prettyunits	NA
## pROC	"Rcpp"
## processx	NA
## prodlim	"Rcpp"
## progress	NA
## promises	"later, Rcpp"
## proxy	NA
## ps	NA
## purrr	NA
## qpdf	"Rcpp"
## R6	NA
## randomForest	NA
## ranger	"Rcpp, RcppEigen"
## raster	"Rcpp"
## rcmdcheck	NA
## RColorBrewer	NA
## Rcpp	NA
## RcppEigen	"Rcpp"
## RcppProgress	NA
## readr	"Rcpp, BH"
## readxl	"progress, Rcpp"
## recipes	NA
## recommenderlab	NA
## recosystem	"Rcpp, RcppProgress"
## registry	NA
## rematch	NA
## rematch2	NA
## remotes	NA
## reprex	NA
## reshape	NA
## reshape2	"Rcpp"
## rex	NA
## rlang	NA
## rmarkdown	NA
## ROCR	NA
## roxygen2	"Rcpp"
## rpart	NA
## rprojroot	NA
## rstudioapi	NA
## rversions	NA
## rvest	NA
## scales	NA
## selectr	NA
## sessioninfo	NA
## shiny	NA


```

## shinyWidgets      NA
## sourcetools       NA
## sp                NA
## spatial           NA
## splines           NA
## SQUAREM           NA
## stats             NA
## stats4            NA
## stringi           NA
## stringr           NA
## survival          NA
## sys               NA
## tcltk             NA
## testthat          NA
## tibble            NA
## tidyr             "Rcpp"
## tidyselect        NA
## tidyverse         NA
## timeDate          NA
## tinytex           NA
## titanic           NA
## tools             NA
## tree              NA
## usethis           NA
## utf8              NA
## utils             NA
## vctrs             NA
## viridisLite       NA
## webshot           NA
## whisker           NA
## withr             NA
## xfun              NA
## xml2              NA
## xopen             NA
## xtable            NA
## yaml              NA
##                  Suggests
## arules            "pmml, XML, arulesViz, testthat"
## askpass           "testthat"
## assertthat        "testthat, covr"
## backports         NA
## base              "methods"
## base64enc         NA
## BH                NA
## bitops            NA
## boot              "MASS, survival"
## Boruta            "mlbench, rFems, randomForest, testthat, xgboost, survival"
## brew              NA
## broom             "AER, akima, AUC, bbmle, betareg, biglm, binGroup, boot, brms,\nbtergm, car, caret, c
## callr             "cliapp, covr, crayon, fansi, pingr, ps, rprojroot, spelling,\ntestthat, tibble, with
## caret             "BradleyTerry2, e1071, earth (>= 2.2-3), fastICA, gam (>=\n1.15), ipred, kernlab, kni
## caTools           "MASS, rpart"
## cellranger        "covr, testthat (>= 1.0.0), knitr, rmarkdown"
## class             NA

```

```

## cli "callr, covr, htmlwidgets, knitr, mockery, rmarkdown,\nrstudioapi, prettycode (>= 1.1
## clipr "covr, knitr, rmarkdown, rstudioapi (>= 0.5), testthat (>=\n2.0.0)"
## cluster "MASS, Matrix"
## codetools NA
## colorspace "datasets, utils, KernSmooth, MASS, kernlab, mvtnorm, vcd,\ntcltk, shiny, shinyjs, gg
## commonmark "curl, testthat, xml2"
## compare NA
## compiler NA
## covr "R6, knitr, rmarkdown, htmltools, DT (>= 0.2), testthat,\nrlang, rstudioapi (>= 0.2),
## crayon "mockery, rstudioapi, testthat, withr"
## crosstalk "shiny, ggplot2, testthat (>= 2.1.0)"
## curl "spelling, testthat (>= 1.0.0), knitr, jsonlite, rmarkdown,\nmagrittr, httpuv (>= 1.4
## data.table "bit64, curl, R.utils, knitr, xts, nanotime, zoo, yaml"
## datasets NA
## DBI "blob, covr, hms, knitr, magrittr, rmarkdown, rprojroot,\nRSQLite (>= 1.1-2), testtha
## dbplyr "bit64, covr, knitr, Lahman, nycflights13, RMariaDB (>=\n1.0.2), rmarkdown, RPostgres
## desc "covr, testthat, whoami, withr"
## devtools "BiocManager (>= 1.30.10), curl (>= 4.3), foghorn (>= 1.1.5),\nngmailr (>= 1.0.0), kni
## digest "tinytest, knitr, rmarkdown"
## dplyr "bit64, callr, covr, crayon (>= 1.3.4), DBI, dbplyr, dtplyr,\nnggplot2, hms, knitr, Lah
## dslabs NA
## DT "knitr (>= 1.8), rmarkdown, shiny (>= 1.2.0)"
## e1071 "cluster, mlbench, nnet, randomForest, rpart, SparseM, xtable,\nMatrix, MASS, slam"
## ellipsis "covr, testthat"
## esquisse "officer, rvg, rio, DT, testthat (>= 2.1.0), knitr, ggthemes,\nhrbrthemes"
## evaluate "testthat, lattice, ggplot2"
## fansi "unitizer, knitr, rmarkdown"
## farver "testthat (>= 2.1.0), covr"
## fastmap "testthat (>= 2.1.1)"
## FMEA "dplyr, ggrepel, ggplot2, magrittr, knitr, rmarkdown"
## forcats "covr, ggplot2, testthat, readr, knitr, rmarkdown, dplyr"
## foreach "randomForest, doMC, doParallel, testthat, knitr, rmarkdown"
## foreign NA
## fs "testthat, covr, pillar (>= 1.0.0), tibble (>= 1.1.0), crayon,\nrmmarkdown, knitr, with
## gbm "knitr, pdp, RUnit, splines, viridis"
## gdata "RUnit"
## generics "covr, pkgload, testthat, tibble"
## ggcorrplot "knitr, spelling"
## ggplot2 "covr, dplyr, ggplot2movies, hexbin, Hmisc, knitr, lattice,\nmapproj, maps, maptools,
## ggrepel "knitr, rmarkdown, testthat, gridExtra, devtools, prettydoc"
## ggvis "MASS, mgcv, lubridate, testthat (>= 0.8.1), knitr (>= 1.6),\nrmmarkdown"
## gh "covr, keyring, pingr, testthat, withr"
## git2r "getPass"
## glue "testthat, covr, magrittr, crayon, knitr, rmarkdown, DBI,\nRSQLite, R.utils, forcats,
## gower "tinytest (>= 0.9.3),"
## gplots "grid, MASS, knitr"
## graphics NA
## grDevices "KernSmooth"
## grid "lattice"
## gridExtra "ggplot2, egg, lattice, knitr, testthat"
## gtable "covr, testthat, knitr, rmarkdown, ggplot2, profvis"
## gtools NA
## haven "covr, fs, knitr, rmarkdown, testthat, pillar (>= 1.4.0), cli,\nrcrayon"
## highr "knitr, testit"

```

```

## HistData      "gtools, KernSmooth, maps, ggplot2, scales, proto, grid,\nreshape, plyr, lattice, jpeg
## hms           "crayon, lubridate, pillar (>= 1.1.0), testthat"
## htmltools     "markdown, testthat, withr"
## htmlwidgets  "knitr (>= 1.8)"
## httpuv        "testthat, callr, curl, websocket"
## httr          "covr, httpuv, jpeg, knitr, png, readr, rmarkdown, testthat\n(>= 0.8.0), xml2"
## igraph        "ape, digest, graph, igraphdata, rgl, scales, stats4, tcltk,\ntestthat, withr"
## ini           "testthat"
## ipred         "mvtnorm, mlbench, TH.data"
## irlba         NA
## isoband       "covr, ggplot2, knitr, magick, microbenchmark, rmarkdown, sf,\ntestthat"
## iterators     "RUnit, foreach"
## jsonlite      "httr, curl, plyr, testthat, knitr, rmarkdown, R.rsp, sp"
## kableExtra    "testthat, magick, formattable, dplyr"
## KernSmooth    "MASS"
## kknk          NA
## knitr         "formatR, testit, digest, rgl (>= 0.95.1201), codetools,\nrmarkdown, htmlwidgets (>= 0
## labeling      NA
## Lahman        "lattice, ggplot2, googleVis, data.table, vcd, plyr, reshape2,\nzipcode"
## later         "knitr, rmarkdown, testthat"
## lattice       "KernSmooth, MASS, latticeExtra"
## lava          "KernSmooth, Matrix, Rgraphviz, data.table, ellipse, fields,\nfforeach, geepack, gof (>= 0.1.1)
## lazyeval      "knitr, rmarkdown (>= 0.2.65), testthat, covr"
## lifecycle     "covr, crayon, knitr, rmarkdown, testthat (>= 2.1.0)"
## lubridate     "covr, knitr, testthat"
## magrittr      "testthat, knitr"
## markdown      "knitr, RCurl"
## MASS          "lattice, nlme, nnet, survival"
## Matrix        "expm, MASS"
## memoise       "testthat, aws.s3, httr, covr"
## methods       "codetools"
## mgcv          "parallel, survival, MASS"
## mime          NA
## miniUI        NA
## MLmetrics     "e1071"
## ModelMetrics  "testthat"
## modelr        "compiler, covr, ggplot2, testthat"
## munsell       "ggplot2, testthat"
## nlme          "Hmisc, MASS"
## nnet          "MASS"
## numDeriv      NA
## openssl       "testthat, digest, knitr, rmarkdown, jsonlite, jose, sodium"
## parallel      "methods"
## pdftools      "jpeg, png, webp, tesseract, testthat"
## pillar        "knitr, lubridate, testthat (>= 2.0.0), withr"
## pkgbuild      "Rcpp, testthat, covr"
## pkgconfig     "covr, testthat, disposables (>= 1.0.3)"
## pkgload       "bitops, covr, Rcpp, testthat"
## plogr         "Rcpp"
## plyr          "abind, covr, doParallel, foreach, iterators, itertools,\ntcltk, testthat"
## praise        "testthat"
## prettyunits   "codetools, covr, testthat"
## pROC          "microbenchmark, tcltk, MASS, logcondens, doParallel,\ntestthat, vdiff, ggplot2"
## processx      "callr (>= 3.2.0), codetools, covr, crayon, curl, debugme,\nparallel, testthat, withr"

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## prodlim      NA
## progress    "Rcpp, testthat, withr"
## promises    "testthat, future, knitr, rmarkdown"
## proxy       "cba"
## ps          "callr, covr, curl, pingr, processx (>= 3.1.0), R6, rlang,\ntestthat, tibble"
## purrr       "covr, crayon, dplyr (>= 0.7.8), knitr, rmarkdown, testthat,\ntibble, tidyselect"
## qpdf        "testthat"
## R6          "knitr, microbenchmark, pryr, testthat, ggplot2, scales"
## randomForest "RColorBrewer, MASS"
## ranger      "survival, testthat"
## raster      "rgdal (>= 0.9-1), rgeos (>= 0.3-8), ncdf4, igraph, tcltk,\nparallel, rasterVis, MASS"
## rcmdcheck   "covr, knitr, mockery, rmarkdown, testthat"
## RColorBrewer NA
## Rcpp        "tinytest, inline, rbenchmark, pkgKitten (>= 0.1.2)"
## RcppEigen   "inline, tinytest, pkgKitten, microbenchmark"
## RcppProgress "RcppArmadillo, devtools, roxygen2, testthat"
## readr       "curl, testthat, knitr, rmarkdown, stringi, covr, spelling"
## readxl      "covr, knitr, rmarkdown, rprojroot (>= 1.1), testthat"
## recipes     "covr, ddalp, dimRed (>= 0.2.2), fastICA, ggplot2, igraph,\nkernlab, knitr, modeldata"
## recommenderlab "ROCR, testthat"
## recosystem  "knitr, prettydoc"
## registry    NA
## rematch     "covr, testthat"
## rematch2    "covr, testthat"
## remotes     "brew, callr, codetools, curl, covr, git2r (>= 0.23.0), knitr,\nmockery, pkgbuild (>= 1.0.0), rcmdcheck, rprojroot, rversions, roxygen2, shiny, styler (>= 1.4.0), testthat"
## reprex      "covr, devtools, fortunes, knitr, miniUI, rprojroot,\nrstudioapi, shiny, styler (>= 1.4.0), testthat"
## reshape     NA
## reshape2    "covr, lattice, testthat (>= 0.8.0)"
## rex         "testthat, knitr, rmarkdown, dplyr, ggplot2, magrittr, Hmisc,\nstringr, rvest, roxygen2"
## rlang       "cli, covr, crayon, glue, magrittr, methods, pillar,\nrmarkdown, testthat (>= 2.3.0), testthat"
## rmarkdown   "shiny (>= 0.11), tufte, testthat, digest, dygraphs, tibble,\nfs, pkgdown, callr (>= 1.0.0), testthat"
## ROCR        "testthat, knitr, rmarkdown"
## roxygen2    "covr, devtools, rmarkdown, testthat (>= 2.1.0), R.methodsS3,\nR.oo"
## rpart       "survival"
## rprojroot   "testthat, mockr, knitr, withr, rmarkdown"
## rstudioapi  "testthat, knitr, rmarkdown, clipr"
## rversions   "mockery, testthat"
## rvest       "covr, knitr, png, rmarkdown, spelling, stringi (>= 0.3.1),\nntestthat"
## scales     "bit64, covr, dichromat, ggplot2, hms (>= 0.5.0), testthat (>= 2.1.0)"
## selectr    "testthat, XML, xml2"
## sessioninfo "callr, covr, mockery, testthat"
## shiny      "datasets, Cairo (>= 1.5-5), testthat (>= 2.1.1), knitr (>= 1.6), markdown, rmarkdown"
## shinyWidgets "shinydashboard, testthat, covr, shinydashboardPlus, bs4Dash,\nargonR, argonDash, tabler"
## sourcetools "testthat"
## sp         "RColorBrewer, rgdal (>= 1.2-3), rgeos (>= 0.3-13), gstat,\nmaptools, deldir"
## spatial    "MASS"
## splines    "Matrix, methods"
## SQUAREM    "setRNG"
## stats      "MASS, Matrix, SuppDists, methods, stats4"
## stats4     NA
## stringi    NA
## stringr    "covr, htmltools, htmlwidgets, knitr, rmarkdown, testthat"
## survival   NA
## sys        "unix (>= 1.4), spelling, testthat"

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## tcltk	NA
## testthat	"covr, curl (>= 0.9.5), devtools, knitr, rmarkdown, usethis,\nvctr (>= 0.1.0), xml2"
## tibble	"bench, bit64, blob, covr, dplyr, evaluate, hms, htmltools,\nnimport, knitr, mockr, ny"
## tidyr	"covr, jsonlite, knitr, repurrrsive (>= 1.0.0), rmarkdown,\nreadr, testthat (>= 2.1.0)"
## tidyselect	"covr, crayon, dplyr, knitr, magrittr, rmarkdown, testthat (>= \n2.3.0), tibble (>= 2."
## tidyverse	"covr, feather, glue, knitr, rmarkdown, testthat"
## timeDate	"date, RUnit"
## tinytex	"testit, rstudioapi, bookdown"
## titanic	"dplyr, knitr"
## tools	"codetools, methods, xml2, curl, commonmark"
## tree	"MASS"
## usethis	"covr, knitr, magick, pkgdown (>= 1.4.0), rmarkdown, roxygen2,\nspelling (>= 1.2), st"
## utf8	"knitr, rmarkdown, testthat"
## utils	"methods, xml2, commonmark"
## vctr	"bit64, covr, crayon, dplyr (>= 0.8.5), generics, knitr,\npillar (>= 1.4.4), pkgdown,"
## viridisLite	"hexbin (>= 1.27.0), ggplot2 (>= 1.0.1), testthat, covr"
## webshot	"httpuv, knitr, rmarkdown, shiny"
## whisker	"markdown"
## withr	"covr, DBI, knitr, lattice, methods, rmarkdown, RSQLite,\ntestthat (>= 2.1.0)"
## xfun	"testit, parallel, rstudioapi, tinytex, mime, markdown, knitr,\nhtmltools, base64enc,"
## xml2	"covr, curl, httr, knitr, magrittr, mockery, rmarkdown,\ntestthat (>= 2.1.0)"
## xopen	"ps, testthat"
## xtable	"knitr, plm, zoo, survival"
## yaml	"RUnit"
##	Enhances
## arules	NA
## askpass	NA
## assertthat	NA
## backports	NA
## base	NA
## base64enc	"png"
## BH	NA
## bitops	NA
## boot	NA
## Boruta	NA
## brew	NA
## broom	NA
## callr	NA
## caret	NA
## caTools	NA
## cellranger	NA
## class	NA
## cli	NA
## clipr	NA
## cluster	NA
## codetools	NA
## colorspace	NA
## commonmark	NA
## compare	NA
## compiler	NA
## covr	NA
## crayon	NA
## crosstalk	NA
## curl	NA

## data.table	NA
## datasets	NA
## DBI	NA
## dbplyr	NA
## desc	NA
## devtools	NA
## digest	NA
## dplyr	NA
## dslabs	NA
## DT	NA
## e1071	NA
## ellipsis	NA
## esquisse	NA
## evaluate	NA
## fansi	NA
## farver	NA
## fastmap	NA
## FMEA	NA
## forcats	NA
## foreach	NA
## foreign	NA
## fs	NA
## gbm	NA
## gdata	NA
## generics	NA
## ggcorrplot	NA
## ggplot2	"sp"
## ggrepel	NA
## ggvis	NA
## gh	NA
## git2r	NA
## glue	NA
## gower	NA
## gplots	NA
## graphics	NA
## grDevices	NA
## grid	NA
## gridExtra	NA
## gtable	NA
## gtools	NA
## haven	NA
## highr	NA
## HistData	NA
## hms	NA
## htmltools	"knitr"
## htmlwidgets	"shiny (>= 1.1)"
## httpuv	NA
## httr	NA
## igraph	NA
## ini	NA
## ipred	NA
## irlba	NA
## isoband	NA
## iterators	NA

```

## jsonlite      NA
## kableExtra    NA
## KernSmooth    NA
## kkn           NA
## knitr         NA
## labeling      NA
## Lahman        NA
## later         NA
## lattice       "chron"
## lava          NA
## lazyeval      NA
## lifecycle     NA
## lubridate     "chron, timeDate, tis, zoo"
## magrittr      NA
## markdown      NA
## MASS          NA
## Matrix        "MatrixModels, graph, SparseM, sfsmisc"
## memoise       NA
## methods       NA
## mgcv          NA
## mime          NA
## miniUI        NA
## MLmetrics     NA
## ModelMetrics  NA
## modelr        NA
## munsell       NA
## nlme          NA
## nnet          NA
## numDeriv      NA
## openssl       NA
## parallel      "snow, nws, Rmpi"
## pdftools      NA
## pillar        NA
## pkgbuild      NA
## pkgconfig     NA
## pkgload       NA
## plogr         NA
## plyr          NA
## praise        NA
## prettyunits   NA
## pROC          NA
## processx      NA
## prodlim       NA
## progress      NA
## promises      NA
## proxy         NA
## ps            NA
## purrr         NA
## qpdf          NA
## R6            NA
## randomForest  NA
## ranger        NA
## raster        NA
## rcmdcheck     NA

```

## RColorBrewer	NA
## Rcpp	NA
## RcppEigen	NA
## RcppProgress	NA
## readr	NA
## readxl	NA
## recipes	NA
## recommenderlab	NA
## recosystem	NA
## registry	NA
## rematch	NA
## rematch2	NA
## remotes	NA
## reprex	NA
## reshape	NA
## reshape2	NA
## rex	NA
## rlang	NA
## rmarkdown	NA
## ROCR	NA
## roxygen2	NA
## rpart	NA
## rprojroot	NA
## rstudioapi	NA
## rversions	NA
## rvest	NA
## scales	NA
## selectr	NA
## sessioninfo	NA
## shiny	NA
## shinyWidgets	NA
## sourcetools	NA
## sp	NA
## spatial	NA
## splines	NA
## SQUAREM	NA
## stats	NA
## stats4	NA
## stringi	NA
## stringr	NA
## survival	NA
## sys	NA
## tcltk	NA
## testthat	NA
## tibble	NA
## tidyr	NA
## tidyselect	NA
## tidyverse	NA
## timeDate	NA
## tinytex	NA
## titanic	NA
## tools	NA
## tree	NA
## usethis	NA

## utf8	NA	
## utils	NA	
## vctrs	NA	
## viridisLite	NA	
## webshot	NA	
## whisker	NA	
## withr	NA	
## xfun	NA	
## xml2	NA	
## xopen	NA	
## xtable	NA	
## yaml	NA	
##	License	License_is_FOSS
## arules	"GPL-3"	NA
## askpass	"MIT + file LICENSE"	NA
## assertthat	"GPL-3"	NA
## backports	"GPL-2 GPL-3"	NA
## base	"Part of R 4.0.0"	NA
## base64enc	"GPL-2 GPL-3"	NA
## BH	"BSL-1.0"	NA
## bitops	"GPL (>= 2)"	NA
## boot	"Unlimited"	NA
## Boruta	"GPL (>= 2)"	NA
## brew	"GPL-2"	NA
## broom	"MIT + file LICENSE"	NA
## callr	"MIT + file LICENSE"	NA
## caret	"GPL (>= 2)"	NA
## caTools	"GPL-3"	NA
## cellranger	"MIT + file LICENSE"	NA
## class	"GPL-2 GPL-3"	NA
## cli	"MIT + file LICENSE"	NA
## clipr	"GPL-3"	NA
## cluster	"GPL (>= 2)"	NA
## codetools	"GPL"	NA
## colorspace	"BSD_3_clause + file LICENSE"	NA
## commonmark	"BSD_2_clause + file LICENSE"	NA
## compare	"GPL (>= 2)"	NA
## compiler	"Part of R 4.0.0"	NA
## covr	"GPL-3"	NA
## crayon	"MIT + file LICENSE"	NA
## crosstalk	"MIT + file LICENSE"	NA
## curl	"MIT + file LICENSE"	NA
## data.table	"MPL-2.0 file LICENSE"	NA
## datasets	"Part of R 4.0.0"	NA
## DBI	"LGPL (>= 2.1)"	NA
## dbplyr	"MIT + file LICENSE"	NA
## desc	"MIT + file LICENSE"	NA
## devtools	"GPL (>= 2)"	NA
## digest	"GPL (>= 2)"	NA
## dplyr	"MIT + file LICENSE"	NA
## dslabs	"Artistic-2.0"	NA
## DT	"GPL-3 file LICENSE"	NA
## e1071	"GPL-2 GPL-3"	NA
## ellipsis	"GPL-3"	NA

## esquisse	"GPL-3 file LICENSE"	NA
## evaluate	"MIT + file LICENSE"	NA
## fansi	"GPL (>= 2)"	NA
## farver	"MIT + file LICENSE"	NA
## fastmap	"MIT + file LICENSE"	NA
## FMEA	"GPL-3"	NA
## forcats	"GPL-3"	NA
## foreach	"Apache License (== 2.0)"	NA
## foreign	"GPL (>= 2)"	NA
## fs	"GPL-3"	NA
## gbm	"GPL (>= 2) file LICENSE"	NA
## gdata	"GPL-2"	NA
## generics	"GPL-2"	NA
## ggcorrplot	"GPL-2"	NA
## ggplot2	"GPL-2 file LICENSE"	NA
## ggrepel	"GPL-3 file LICENSE"	NA
## ggvis	"GPL-2 file LICENSE"	NA
## gh	"MIT + file LICENSE"	NA
## git2r	"GPL-2"	NA
## glue	"MIT + file LICENSE"	NA
## gower	"GPL-3"	NA
## gplots	"GPL-2"	NA
## graphics	"Part of R 4.0.0"	NA
## grDevices	"Part of R 4.0.0"	NA
## grid	"Part of R 4.0.0"	NA
## gridExtra	"GPL (>= 2)"	NA
## gtable	"GPL-2"	NA
## gtools	"GPL-2"	NA
## haven	"MIT + file LICENSE"	NA
## highr	"GPL"	NA
## HistData	"GPL"	NA
## hms	"GPL-3"	NA
## htmltools	"GPL (>= 2)"	NA
## htmlwidgets	"MIT + file LICENSE"	NA
## httpuv	"GPL (>= 2) file LICENSE"	NA
## httr	"MIT + file LICENSE"	NA
## igraph	"GPL (>= 2)"	NA
## ini	"GPL-3"	NA
## ipred	"GPL (>= 2)"	NA
## irlba	"GPL-3"	NA
## isoband	"MIT + file LICENSE"	NA
## iterators	"Apache License (== 2.0)"	NA
## jsonlite	"MIT + file LICENSE"	NA
## kableExtra	"MIT + file LICENSE"	NA
## KernSmooth	"Unlimited"	NA
## kkn	"GPL (>= 2)"	NA
## knitr	"GPL"	NA
## labeling	"MIT + file LICENSE Unlimited"	NA
## Lahman	"GPL"	NA
## later	"GPL (>= 2)"	NA
## lattice	"GPL (>= 2)"	NA
## lava	"GPL-3"	NA
## lazyeval	"GPL-3"	NA
## lifecycle	"GPL-3"	NA

## lubridate	"GPL (>= 2)"	NA
## magrittr	"MIT + file LICENSE"	NA
## markdown	"GPL-2"	NA
## MASS	"GPL-2 GPL-3"	NA
## Matrix	"GPL (>= 2) file LICENCE"	NA
## memoise	"MIT + file LICENSE"	NA
## methods	"Part of R 4.0.0"	NA
## mgcv	"GPL (>= 2)"	NA
## mime	"GPL"	NA
## miniUI	"GPL-3"	NA
## MLmetrics	"GPL-2"	NA
## ModelMetrics	"GPL (>= 2)"	NA
## modelr	"GPL-3"	NA
## munsell	"MIT + file LICENSE"	NA
## nlme	"GPL (>= 2) file LICENCE"	NA
## nnet	"GPL-2 GPL-3"	NA
## numDeriv	"GPL-2"	NA
## openssl	"MIT + file LICENSE"	NA
## parallel	"Part of R 4.0.0"	NA
## pdftools	"MIT + file LICENSE"	NA
## pillar	"GPL-3"	NA
## pkgbuild	"GPL-3"	NA
## pkgconfig	"MIT + file LICENSE"	NA
## pkgload	"GPL-3"	NA
## plogr	"MIT + file LICENSE"	NA
## plyr	"MIT + file LICENSE"	NA
## praise	"MIT + file LICENSE"	NA
## prettyunits	"MIT + file LICENSE"	NA
## pROC	"GPL (>= 3)"	NA
## processx	"MIT + file LICENSE"	NA
## prodlim	"GPL (>= 2)"	NA
## progress	"MIT + file LICENSE"	NA
## promises	"MIT + file LICENSE"	NA
## proxy	"GPL-2"	NA
## ps	"BSD_3_clause + file LICENSE"	NA
## purrr	"GPL-3 file LICENSE"	NA
## qpdf	"Apache License 2.0"	NA
## R6	"MIT + file LICENSE"	NA
## randomForest	"GPL (>= 2)"	NA
## ranger	"GPL-3"	NA
## raster	"GPL (>= 3)"	NA
## rcmdcheck	"MIT + file LICENSE"	NA
## RColorBrewer	"Apache License 2.0"	NA
## Rcpp	"GPL (>= 2)"	NA
## RcppEigen	"GPL (>= 2) file LICENSE"	NA
## RcppProgress	"GPL (>= 3)"	NA
## readr	"GPL (>= 2) file LICENSE"	NA
## readxl	"GPL-3"	NA
## recipes	"GPL-2"	NA
## recommenderlab	"GPL-2"	NA
## ecosystem	"BSD_3_clause + file LICENSE"	NA
## registry	"GPL-2"	NA
## rematch	"MIT + file LICENSE"	NA
## rematch2	"MIT + file LICENSE"	NA

## remotes	"GPL (>= 2)"	NA
## reprex	"MIT + file LICENSE"	NA
## reshape	"MIT + file LICENSE"	NA
## reshape2	"MIT + file LICENSE"	NA
## rex	"MIT + file LICENSE"	NA
## rlang	"GPL-3"	NA
## rmarkdown	"GPL-3"	NA
## ROCR	"GPL (>= 2)"	NA
## roxygen2	"GPL (>= 2)"	NA
## rpart	"GPL-2 GPL-3"	NA
## rprojroot	"GPL-3"	NA
## rstudioapi	"MIT + file LICENSE"	NA
## rversions	"MIT + file LICENSE"	NA
## rvest	"GPL-3"	NA
## scales	"MIT + file LICENSE"	NA
## selectr	"BSD_3_clause + file LICENSE"	NA
## sessioninfo	"GPL-2"	NA
## shiny	"GPL-3 file LICENSE"	NA
## shinyWidgets	"GPL-3"	NA
## sourcetools	"MIT + file LICENSE"	NA
## sp	"GPL (>= 2)"	NA
## spatial	"GPL-2 GPL-3"	NA
## splines	"Part of R 4.0.0"	NA
## SQUAREM	"GPL (>= 2)"	NA
## stats	"Part of R 4.0.0"	NA
## stats4	"Part of R 4.0.0"	NA
## stringi	"file LICENSE"	"yes"
## stringr	"GPL-2 file LICENSE"	NA
## survival	"LGPL (>= 2)"	NA
## sys	"MIT + file LICENSE"	NA
## tcltk	"Part of R 4.0.0"	NA
## testthat	"MIT + file LICENSE"	NA
## tibble	"MIT + file LICENSE"	NA
## tidyr	"MIT + file LICENSE"	NA
## tidyselect	"GPL-3"	NA
## tidyverse	"GPL-3 file LICENSE"	NA
## timeDate	"GPL (>= 2)"	NA
## tinytex	"MIT + file LICENSE"	NA
## titanic	"CC0"	NA
## tools	"Part of R 4.0.0"	NA
## tree	"GPL-2 GPL-3"	NA
## usethis	"GPL-3"	NA
## utf8	"Apache License (== 2.0) file LICENSE"	NA
## utils	"Part of R 4.0.0"	NA
## vctrs	"GPL-3"	NA
## viridisLite	"MIT + file LICENSE"	NA
## webshot	"GPL-2"	NA
## whisker	"GPL-3"	NA
## withr	"GPL (>= 2)"	NA
## xfun	"MIT + file LICENSE"	NA
## xml2	"GPL (>= 2)"	NA
## xopen	"MIT + file LICENSE"	NA
## xtable	"GPL (>= 2)"	NA
## yaml	"BSD_3_clause + file LICENSE"	NA

##	License_restricts_use	OS_type	MD5sum	NeedsCompilation	Built
## arules	NA	NA	NA	"yes"	"4.0.0"
## askpass	NA	NA	NA	"yes"	"4.0.0"
## assertthat	NA	NA	NA	"no"	"4.0.0"
## backports	NA	NA	NA	"yes"	"4.0.0"
## base	NA	NA	NA	NA	"4.0.0"
## base64enc	NA	NA	NA	"yes"	"4.0.0"
## BH	NA	NA	NA	"no"	"4.0.0"
## bitops	NA	NA	NA	"yes"	"4.0.0"
## boot	NA	NA	NA	"no"	"4.0.0"
## Boruta	NA	NA	NA	"no"	"4.0.0"
## brew	NA	NA	NA	NA	"4.0.0"
## broom	NA	NA	NA	"no"	"4.0.0"
## callr	NA	NA	NA	"no"	"4.0.0"
## caret	NA	NA	NA	"yes"	"4.0.0"
## caTools	NA	NA	NA	"yes"	"4.0.0"
## cellranger	NA	NA	NA	"no"	"4.0.0"
## class	NA	NA	NA	"yes"	"4.0.0"
## cli	NA	NA	NA	"no"	"4.0.0"
## clipr	NA	NA	NA	"no"	"4.0.0"
## cluster	NA	NA	NA	"yes"	"4.0.0"
## codetools	NA	NA	NA	"no"	"4.0.0"
## colorspace	NA	NA	NA	"yes"	"4.0.0"
## commonmark	NA	NA	NA	"yes"	"4.0.0"
## compare	NA	NA	NA	"no"	"4.0.0"
## compiler	NA	NA	NA	NA	"4.0.0"
## covr	NA	NA	NA	"yes"	"4.0.0"
## crayon	NA	NA	NA	"no"	"4.0.0"
## crosstalk	NA	NA	NA	"no"	"4.0.0"
## curl	NA	NA	NA	"yes"	"4.0.0"
## data.table	NA	NA	NA	"yes"	"4.0.0"
## datasets	NA	NA	NA	NA	"4.0.0"
## DBI	NA	NA	NA	"no"	"4.0.0"
## dbplyr	NA	NA	NA	"no"	"4.0.0"
## desc	NA	NA	NA	"no"	"4.0.0"
## devtools	NA	NA	NA	"no"	"4.0.0"
## digest	NA	NA	NA	"yes"	"4.0.0"
## dplyr	NA	NA	NA	"yes"	"4.0.0"
## dslabs	NA	NA	NA	"no"	"4.0.0"
## DT	NA	NA	NA	"no"	"4.0.0"
## e1071	NA	NA	NA	"yes"	"4.0.0"
## ellipsis	NA	NA	NA	"yes"	"4.0.0"
## esquisse	NA	NA	NA	"no"	"4.0.0"
## evaluate	NA	NA	NA	"no"	"4.0.0"
## fansi	NA	NA	NA	"yes"	"4.0.0"
## farver	NA	NA	NA	"yes"	"4.0.0"
## fastmap	NA	NA	NA	"yes"	"4.0.0"
## FMEA	NA	NA	NA	"no"	"4.0.0"
## forcats	NA	NA	NA	"no"	"4.0.0"
## foreach	NA	NA	NA	"no"	"4.0.0"
## foreign	NA	NA	NA	"yes"	"4.0.0"
## fs	NA	NA	NA	"yes"	"4.0.0"
## gbm	NA	NA	NA	"yes"	"4.0.0"
## gdata	NA	NA	NA	"no"	"4.0.0"

## generics	NA	NA	NA	"no"	"4.0.0"
## ggcorrplot	NA	NA	NA	"no"	"4.0.0"
## ggplot2	NA	NA	NA	"no"	"4.0.0"
## ggrepel	NA	NA	NA	"yes"	"4.0.0"
## ggvis	NA	NA	NA	"no"	"4.0.0"
## gh	NA	NA	NA	"no"	"4.0.0"
## git2r	NA	NA	NA	"yes"	"4.0.0"
## glue	NA	NA	NA	"yes"	"4.0.0"
## gower	NA	NA	NA	"yes"	"4.0.0"
## gplots	NA	NA	NA	"no"	"4.0.0"
## graphics	NA	NA	NA	"yes"	"4.0.0"
## grDevices	NA	NA	NA	"yes"	"4.0.0"
## grid	NA	NA	NA	"yes"	"4.0.0"
## gridExtra	NA	NA	NA	"no"	"4.0.0"
## gtable	NA	NA	NA	"no"	"4.0.0"
## gtools	NA	NA	NA	"yes"	"4.0.0"
## haven	NA	NA	NA	"yes"	"4.0.0"
## highr	NA	NA	NA	"no"	"4.0.0"
## HistData	NA	NA	NA	"no"	"4.0.0"
## hms	NA	NA	NA	"no"	"4.0.0"
## htmltools	NA	NA	NA	"yes"	"4.0.0"
## htmlwidgets	NA	NA	NA	"no"	"4.0.0"
## httpuv	NA	NA	NA	"yes"	"4.0.0"
## httr	NA	NA	NA	"no"	"4.0.0"
## igraph	NA	NA	NA	"yes"	"4.0.0"
## ini	NA	NA	NA	"no"	"4.0.0"
## ipred	NA	NA	NA	"yes"	"4.0.0"
## irlba	NA	NA	NA	"yes"	"4.0.0"
## isoband	NA	NA	NA	"yes"	"4.0.0"
## iterators	NA	NA	NA	"no"	"4.0.0"
## jsonlite	NA	NA	NA	"yes"	"4.0.0"
## kableExtra	NA	NA	NA	"no"	"4.0.0"
## KernSmooth	NA	NA	NA	"yes"	"4.0.0"
## kknn	NA	NA	NA	"yes"	"4.0.0"
## knitr	NA	NA	NA	"no"	"4.0.0"
## labeling	NA	NA	NA	"no"	"4.0.0"
## Lahman	NA	NA	NA	"no"	"4.0.0"
## later	NA	NA	NA	"yes"	"4.0.0"
## lattice	NA	NA	NA	"yes"	"4.0.0"
## lava	NA	NA	NA	"no"	"4.0.0"
## lazyeval	NA	NA	NA	"yes"	"4.0.0"
## lifecycle	NA	NA	NA	"no"	"4.0.0"
## lubridate	NA	NA	NA	"yes"	"4.0.0"
## magrittr	NA	NA	NA	"no"	"4.0.0"
## markdown	NA	NA	NA	"yes"	"4.0.0"
## MASS	NA	NA	NA	"yes"	"4.0.0"
## Matrix	NA	NA	NA	"yes"	"4.0.0"
## memoise	NA	NA	NA	"no"	"4.0.0"
## methods	NA	NA	NA	"yes"	"4.0.0"
## mgcv	NA	NA	NA	"yes"	"4.0.0"
## mime	NA	NA	NA	"yes"	"4.0.0"
## miniUI	NA	NA	NA	"no"	"4.0.0"
## MLmetrics	NA	NA	NA	"no"	"4.0.0"
## ModelMetrics	NA	NA	NA	"yes"	"4.0.0"

## modelr	NA	NA	NA	"no"	"4.0.0"
## munsell	NA	NA	NA	"no"	"4.0.0"
## nlme	NA	NA	NA	"yes"	"4.0.0"
## nnet	NA	NA	NA	"yes"	"4.0.0"
## numDeriv	NA	NA	NA	"no"	"4.0.0"
## openssl	NA	NA	NA	"yes"	"4.0.0"
## parallel	NA	NA	NA	"yes"	"4.0.0"
## pdftools	NA	NA	NA	"yes"	"4.0.0"
## pillar	NA	NA	NA	"no"	"4.0.0"
## pkgbuild	NA	NA	NA	"no"	"4.0.0"
## pkgconfig	NA	NA	NA	"no"	"4.0.0"
## pkgload	NA	NA	NA	"yes"	"4.0.0"
## plogr	NA	NA	NA	"no"	"4.0.0"
## plyr	NA	NA	NA	"yes"	"4.0.0"
## praise	NA	NA	NA	"no"	"4.0.0"
## prettyunits	NA	NA	NA	"no"	"4.0.0"
## pROC	NA	NA	NA	"yes"	"4.0.0"
## processx	NA	NA	NA	"yes"	"4.0.0"
## proclim	NA	NA	NA	"yes"	"4.0.0"
## progress	NA	NA	NA	"no"	"4.0.0"
## promises	NA	NA	NA	"yes"	"4.0.0"
## proxy	NA	NA	NA	"yes"	"4.0.0"
## ps	NA	NA	NA	"yes"	"4.0.0"
## purrr	NA	NA	NA	"yes"	"4.0.0"
## qpdf	NA	NA	NA	"yes"	"4.0.0"
## R6	NA	NA	NA	"no"	"4.0.0"
## randomForest	NA	NA	NA	"yes"	"4.0.0"
## ranger	NA	NA	NA	"yes"	"4.0.0"
## raster	NA	NA	NA	"yes"	"4.0.0"
## rcmdcheck	NA	NA	NA	"no"	"4.0.0"
## RColorBrewer	NA	NA	NA	"no"	"4.0.0"
## Rcpp	NA	NA	NA	"yes"	"4.0.0"
## RcppEigen	NA	NA	NA	"yes"	"4.0.0"
## RcppProgress	NA	NA	NA	"no"	"4.0.0"
## readr	NA	NA	NA	"yes"	"4.0.0"
## readxl	NA	NA	NA	"yes"	"4.0.0"
## recipes	NA	NA	NA	"no"	"4.0.0"
## recommenderlab	NA	NA	NA	"no"	"4.0.0"
## ecosystem	NA	NA	NA	"yes"	"4.0.0"
## registry	NA	NA	NA	"no"	"4.0.0"
## rematch	NA	NA	NA	"no"	"4.0.0"
## rematch2	NA	NA	NA	"no"	"4.0.0"
## remotes	NA	NA	NA	"no"	"4.0.0"
## reprex	NA	NA	NA	"no"	"4.0.0"
## reshape	NA	NA	NA	"yes"	"4.0.0"
## reshape2	NA	NA	NA	"yes"	"4.0.0"
## rex	NA	NA	NA	"no"	"4.0.0"
## rlang	NA	NA	NA	"yes"	"4.0.0"
## rmarkdown	NA	NA	NA	"no"	"4.0.0"
## ROCR	NA	NA	NA	"no"	"4.0.0"
## roxygen2	NA	NA	NA	"yes"	"4.0.0"
## rpart	NA	NA	NA	"yes"	"4.0.0"
## rprojroot	NA	NA	NA	"no"	"4.0.0"
## rstudioapi	NA	NA	NA	"no"	"4.0.0"

## rversions	NA	NA	NA	"no"	"4.0.0"
## rvest	NA	NA	NA	"no"	"4.0.0"
## scales	NA	NA	NA	"no"	"4.0.0"
## selectr	NA	NA	NA	"no"	"4.0.0"
## sessioninfo	NA	NA	NA	"no"	"4.0.0"
## shiny	NA	NA	NA	"no"	"4.0.0"
## shinyWidgets	NA	NA	NA	"no"	"4.0.0"
## sourcetools	NA	NA	NA	"yes"	"4.0.0"
## sp	NA	NA	NA	"yes"	"4.0.0"
## spatial	NA	NA	NA	"yes"	"4.0.0"
## splines	NA	NA	NA	"yes"	"4.0.0"
## SQUAREM	NA	NA	NA	"no"	"4.0.0"
## stats	NA	NA	NA	"yes"	"4.0.0"
## stats4	NA	NA	NA	NA	"4.0.0"
## stringi	NA	NA	NA	"yes"	"4.0.0"
## stringr	NA	NA	NA	"no"	"4.0.0"
## survival	NA	NA	NA	"yes"	"4.0.0"
## sys	NA	NA	NA	"yes"	"4.0.0"
## tcltk	NA	NA	NA	"yes"	"4.0.0"
## testthat	NA	NA	NA	"yes"	"4.0.0"
## tibble	NA	NA	NA	"yes"	"4.0.0"
## tidyr	NA	NA	NA	"yes"	"4.0.0"
## tidyselect	NA	NA	NA	"yes"	"4.0.0"
## tidyverse	NA	NA	NA	"no"	"4.0.0"
## timeDate	NA	NA	NA	"no"	"4.0.0"
## tinytex	NA	NA	NA	"no"	"4.0.0"
## titanic	NA	NA	NA	"no"	"4.0.0"
## tools	NA	NA	NA	"yes"	"4.0.0"
## tree	NA	NA	NA	"yes"	"4.0.0"
## usethis	NA	NA	NA	"no"	"4.0.0"
## utf8	NA	NA	NA	"yes"	"4.0.0"
## utils	NA	NA	NA	"yes"	"4.0.0"
## vctrs	NA	NA	NA	"yes"	"4.0.0"
## viridisLite	NA	NA	NA	"no"	"4.0.0"
## webshot	NA	NA	NA	"no"	"4.0.0"
## whisker	NA	NA	NA	"no"	"4.0.0"
## withr	NA	NA	NA	"no"	"4.0.0"
## xfun	NA	NA	NA	"no"	"4.0.0"
## xml2	NA	NA	NA	"yes"	"4.0.0"
## xopen	NA	NA	NA	"no"	"4.0.0"
## xtable	NA	NA	NA	"no"	"4.0.0"
## yaml	NA	NA	NA	"yes"	"4.0.0"