R Resources

Resources for learning R

Because R is an open source project, there are a lot of R enthusiasts out there who have provided great documentation on learning R. There are also good forums where you can learn from (and answer) other people's questions or ask your own.

Getting help within R

- To access the help for any function in R, type a question mark followed by the function name. For example, to get help with `sum` type `?sum`

- Within RStudio, you can see all the help files for a given package by clicking on the "package" tab in the lower right panel and then clicking the hyper-linked package name.

- Another great way to learn R is to look at the source code. You can view the source code for any function by typing the function name into the R console.

- And another great way to learn R is to look at other people's scripts! If you aren't sure what a script does, form a hypothesis about it, and then test your hypothesis by running one section at a time and seeing what happens.

Getting help on the web

Manuals and tutorials

Quick-R http://www.statmethods.net/index.html Quick-R was our go-to stop when we began learning R, and is still the first stop whenever we need a refresher. It's well-organized with sections on the R Interface, Data Input and Management, Basic and Advanced Stats and Basic and Advanced Graphs.

Cookbook for R http://www.cookbook-r.com/ Has a goal of providing solutions to common tasks and problems in analyzing data. We often find the solution here after googling an issue.

swirl http://swirlstats.com/ swirl's motto is "Learn R, in R". It is a package that walks you through different lessons. Modules include R Programming, Data Analysis, Getting and and Cleaning Data, Regression Models and Statistical Inference. It is actively being developed, so keep checking in for new lessons!

The R Manuals at CRAN http://cran.r-project.org/manuals.html Detailed walk-through on basics of R and data import/export.

RStudio website http://www.rstudio.com/resources/training/ The RStudio website has a lot of online tutorials and information. It is particularly helpful for R functionality enabled by RStudio, such as RMarkdown and Shiny.

Advanced R by Hadley Wickham http://adv-r.had.co.nz/ Hadley Wickham does has made it is mission to make R more useable and accessible to a wide audience. Don't be intimated by the "Advanced" moniker, the foundations are explained well too.

ggplot2 guide http://docs.ggplot2.org/current/ Easily-to-navigate help on ggplot2, with tons of examples.

R Programming.net http://rprogramming.net/ Includes a lot of bite-sized "how-tos" and has a good link list.

Search engines and community sites

R-Seek http://www.rseek.org/ Restricts a google-search to just R-related material. This is especially great when you're searching for help on a function whose name is common English. Compare an rseek vs google search on "aggregate".

Stack Overflow http://stackoverflow.com/ A question and answer site for programmers. Often if you have a problem other people had it too - this is a great place to look and see if they had it answered. If you have had a good look here and in other resources and can't find your solution, go ahead and ask. Be sure to give a "reproducible" example so that others can recreate your problem to help find the solution.

R-project listservs http://www.r-project.org/mail.html Mailing lists for different R topics. The archives are great to search.

Cheat sheets

- R Ref Card http://cran.r-project.org/doc/contrib/Baggott-refcard-v2.pdf
- tidyr and dplyr Cheat Sheet http://www.rstudio.com/wp-content/uploads/2015/01/data-wrangling-cheatsheet.pdf
- RMarkdown Cheat Sheet http://rmarkdown.rstudio.com/RMarkdownCheatSheet.pdf
- R Color Guide http://www.stat.columbia.edu/~tzheng/files/Rcolor.pdf
- Google Style Guide http://google-styleguide.googlecode.com/svn/trunk/Rguide.xml

.