Introduction to Data Analysis & Visualization with R workshop handout

Up and running with R

R website	https://www.r-project.org/
CRAN, Comprehensive R Archive Network – download R and additional 3rd party packages	https://cran.r-project.org/
RStudio – a 3rd party integrated development environment for R (install R before RStudio)	https://www.rstudio.com/
All R packages available from CRAN, sorted by name	https://cran.r-project.org/web/packages/available_packages_by_name.html
All R packages available from CRAN, sorted by date of publication	https://cran.r-project.org/web/packages/available_packages_by_date.html
Browse CRAN packages by topic and tools to automatically install all packages for special areas of interest	https://cran.r-project.org/web/views/

Recommended packages for common needs

Data wrangling	• data.table • dplyr • tidyr
Statistics	• stats (available by default) • car • ez
Graphics	• dygraphs • ggplot2 • plotly
Reproducibility	• knitr • rmarkdown • shiny

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Further R resources

Official R manuals	https://cran.r-project.org/manuals.html
RSEEK – 3rd party search engine for R content	http://rseek.org/
RStudio cheat sheets – quick reference guides for various packages and tasks	http://www.rstudio.com/resources/cheatsheets
Google's R Style Guide – good reference for making R code easier to read and share	https://google.github.io/styleguide/Rguide.xml
CodeSchool.com – free online course	https://www.codeschool.com/courses/try-r
Coursera.org – free online course	https://www.coursera.org/learn/r-programming
DataCamp.com – free online course	https://www.datacamp.com/courses/free-introduction-to-r
Harvard.edu – free online course	http://online-learning.harvard.edu/course/statistics-and-r-life-sciences
Lynda.com – free online course	http://www.lynda.com/search?q=R
R-Statistics blog	http://www.r-statistics.com/
rOpenSci – community effort for creating open tools for open science	http://ropensci.org/
Stanford.edu – free online course	http://online.stanford.edu/course/introduction-statistical-learning
UCLA.edu – extensive set of guides for learning statistics and R from beginner to advanced levels	http://www.ats.ucla.edu/stat/r/
VarianceExplained.org – free online course	http://varianceexplained.org/RData/
Vimeo.com – many free video tutorials	https://vimeo.com/search?q=%22r+tutorial%22
YouTube.com – many free video tutorials	https://www.youtube.com/results?search_query=%22R+tutorial%22