**Resources**

* [**R versus Python, a comprehensive guide for data professionals**](https://medium.com/analytics-and-data/r-vs-python-a-comprehensive-guide-for-data-professionals-321e8dead598)**:** This article is written by a data professional with extensive experience using both languages and provides a detailed comparison.
* [**R versus Python, an objective comparison**](https://www.dataquest.io/blog/python-vs-r/)**:** This article provides a comparison of the languages using examples of code use.
* [**R versus Python: What’s the best language for data science?**](https://blog.rstudio.com/2019/12/17/r-vs-python-what-s-the-best-for-language-for-data-science/)**:** This blog article provides RStudio’s perspective on the R vs. Python debate.

**Communities:**

* [**RStudio Community:**](https://community.rstudio.com/)The RStudio Community forum is a great place to get help and find solutions to challenges you have with R–and maybe help someone else out, too!
* [**r/RLanguage**](https://www.reddit.com/r/Rlanguage/)**:** The R language subreddit is an active online community on the social media platform Reddit, where R users go to discuss R, ask questions, and share tips.
* [**rOpenSci**](https://discuss.ropensci.org/)**:** rOpenSci has a community forum where R users can ask questions and search for solutions. It also includes links to their Best Practices guide and support pages.
* [**R4DS Online Learning Community and Slack channel:**](https://www.rfordatasci.com/)This is a community with another Slack channel where R learners and mentors can gather and connect. This is a great place to chat about using R for data science.

**R:**

* [**lubridate.tidyverse**](https://lubridate.tidyverse.org/index.html)
* [**Dates and times with lubridate: Cheat Sheet**](https://rawgit.com/rstudio/cheatsheets/master/lubridate.pdf)
* [**Tidyverse**](https://www.tidyverse.org/)**:** the tidyverse is a collection of R packages specifically designed for working with data. It’s a standard library for most data analysts, but you can also download the packages individually**.**
* [**Quick list of useful R packages**](https://support.rstudio.com/hc/en-us/articles/201057987-Quick-list-of-useful-R-packages)**.**
* [**CRAN Task Views**](https://cran.r-project.org/web/views/): this is an index of CRAN packages sorted by task. You can search for the type of task you need to perform and it will pull up a page with packages related to that task for you to explore.
* [**RStudio**](https://rstudio.com/)**:** The best place to find help with R is in R itself! You can input ‘?’ or the help() command to search in R. You can also open the Help pane to find more R resources.
* [**Stack Overflow:**](https://stackoverflow.blog/)The Stack Overflow blog posts opinions and advice from other coders. This is a great place to stay in touch with conversations happening in the community.
* [**R-Bloggers' tutorials for learning R:**](https://www.r-bloggers.com/2015/12/how-to-learn-r-2/#h.y5b98o9o2h1r)This blog post from R-Bloggers compiles some basic R tutorials and also links to more advanced guides.

**Filtering and dplyr:**

learn more details about ggplot2 and filtering with dplyr, check out these resources:

* [**Putting it all together: (dplyr+ggplot)**](https://rladiessydney.org/courses/ryouwithme/03-vizwhiz-1/#1-4-putting-it-all-together-dplyr-ggplot)**:** The RLadies of Sydney’s course on R uses real data to demonstrate R functions. This lesson focuses specifically on combining dplyr and ggplot to filter data before plotting it. The instructional video will guide you through every step in the process while you follow along with the data they have provided.
* [**Data transformation:**](https://r4ds.had.co.nz/transform.html)This resource focuses on how to use the filter() function in R, and demonstrates how to combine filter() with ggplot(). This is a useful resource if you are interested in learning more about how filter() can be used before plotting.
* [**Visualizing data with ggplot2:**](https://datacarpentry.org/dc_zurich/R-ecology/05-visualisation-ggplot2.html)This comprehensive guide includes everything from the most basic uses for ggplot2 to creating complicated visualisations. It includes the filter() function in most of the examples so you can learn how to implement it in R to create data visualisations.

**Annotations:**

* [**Create an annotation layer**](https://ggplot2.tidyverse.org/reference/annotate.html): This guide explains how to add an annotation layer with ggplot2. It includes sample code and data visualisations with annotations created in ggplot2.
* [**How to annotate a plot in ggplot2**](https://www.r-graph-gallery.com/233-add-annotations-on-ggplot2-chart.html)**:** This resource includes explanations about how to add different kinds of annotations to your ggplot2 plots, and is a great reference if you need to quickly look up a specific kind of annotation.
* [**Annotations**](https://ggplot2-book.org/annotations.html)**:** Chapter eight of the online ggplot2 textbook is focused entirely on annotations. It provides in-depth explanations of the different types of annotations, how they are used, and detailed examples.
* [**How to annotate a plot**](https://www.r-bloggers.com/2017/02/how-to-annotate-a-plot-in-ggplot2/)**:** This R-Bloggers article includes explanations about how to annotate plots in ggplot2. It starts with basic concepts and covers more complicated information the further on you read.
* [**Text Annotations**](https://viz-ggplot2.rsquaredacademy.com/textann.html)**:** This resource focuses specifically on adding text annotations and labels to ggplot2 visualisations.

**Saving plots:**

* [**Saving images without ggsave()**](https://ggplot2.tidyverse.org/reference/ggsave.html#saving-images-without-ggsave-)**:** This resource is pulled directly from the ggplot2 documentation at [tidyverse.org](https://www.tidyverse.org/). It explores the tools you can use to save images in R, and includes several examples to follow along with and learn how to save images in your own R workspace.
* [**How to save a ggplot**](https://www.datanovia.com/en/blog/how-to-save-a-ggplot/)**:** This resource covers multiple different methods for saving ggplots. It also includes copyable code with explanations about how each function is being used so that you can better understand each step in the process.
* [**Saving a plot in R:**](https://www.datamentor.io/r-programming/saving-plot/)This guide covers multiple file formats that you can use to save your plots in R. Each section includes an example with an actual plot that you can copy and use for practice in your own R workspace

**RMarkdown:**

**RStudio's** [**R Markdown documentation**](https://rmarkdown.rstudio.com/lesson-1.html)

## **R Markdown: The Definitive Guide**

[**R Markdown: The Definitive Guide**](https://bookdown.org/yihui/rmarkdown/)

1. [**Part I**](https://bookdown.org/yihui/rmarkdown/installation.html)explains how to install the relevant packages and offers an overview of R Markdown, including the syntax for Markdown and code chunks.
2. [**Part II**](https://bookdown.org/yihui/rmarkdown/documents.html)provides detailed documentation of the built-in output formats included in R Markdown, like document formats and presentation formats.
3. [**Part III**](https://bookdown.org/yihui/rmarkdown/dashboards.html)shares several R Markdown extension packages that allow you to build different applications or generate output documents with different styles.
4. [**Part IV**](https://bookdown.org/yihui/rmarkdown/parameterized-reports.html)covers advanced topics in R Markdown.