

R – Installation Guide

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What is R?

- R is a language – it is an interpreted language
- It provides many statistical computing graphics functionalities. According to their site “it is a suite of software facilities for
 - Data manipulation
 - Calculation
 - Graphical display”
- It is a GNU project – under GNU general public license
 - It is an open source
 - It is a free for our use
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Installing R

- Install R by visiting
 - <http://cran.r-project.org/bin>
 - Microsoft Windows: <http://cran.r-project.org/bin/windows/base/>
 - MacOS: <http://cran.r-project.org/bin/macosx/>
 - Linux: <http://cran.r-project.org/bin/linux/>
 - Select the operating system of your choice
 - Download the image
 - Execute the image

Installing R

- Packages
 - “Base packages” – which come with R
 - Command to see default base packages:
`getOption("defaultPackages")`
 - “Contributed packages” – which must be downloaded and installed
 - There are thousands of contributed packages
 - Install by: `install.packages("foo")` or install with dependencies: `install.packages("foo", depends = TRUE)`
 - Contributed packages has to get loaded by: `library(foo)`. `library()` gives you the list of all the packages in library.
- Install R-Studio
 - Install packages going to (tools->install packages)

R Cheatsheets

- <https://rstudio.com/resources/cheatsheets/>
- <https://github.com/rstudio/cheatsheets>

Extra – Python Software Setup

Python 3 (3.x version)

- <https://www.python.org/downloads/>

Install Jupyter

- `python3 -m pip install --upgrade pip`
- `python3 -m pip install jupyter`
- For MAC – A certificate needs to be installed
 - `/Applications/Python 3.8/Install\ Certificates.command`
- Run Jupyter
 - `jupyter notebook`

Extra - Python

- Resources on Python
 - <http://learnpython.org/>
 - docs.python.org/3/tutorial/