

## How to Install R and R Studio

### MAC OS Users

#### Version Fall 2024

R is a free software for statistical computing and graphics. Its learning curve is a bit steep. But, fortunately for us, there is also R-Studio. R-Studio is a user interface that allows the user to run R in an environment that is much more friendly, especially for new users. **In this course, we will be using R from within R-Studio.**

**R and R Studio are separate packages!**  
**You must install R (and optionally XQuartz) first.**

Part I - Download and Install R

Part II - Download and Install XQuartz

Part III - Download and Install R Studio Desktop

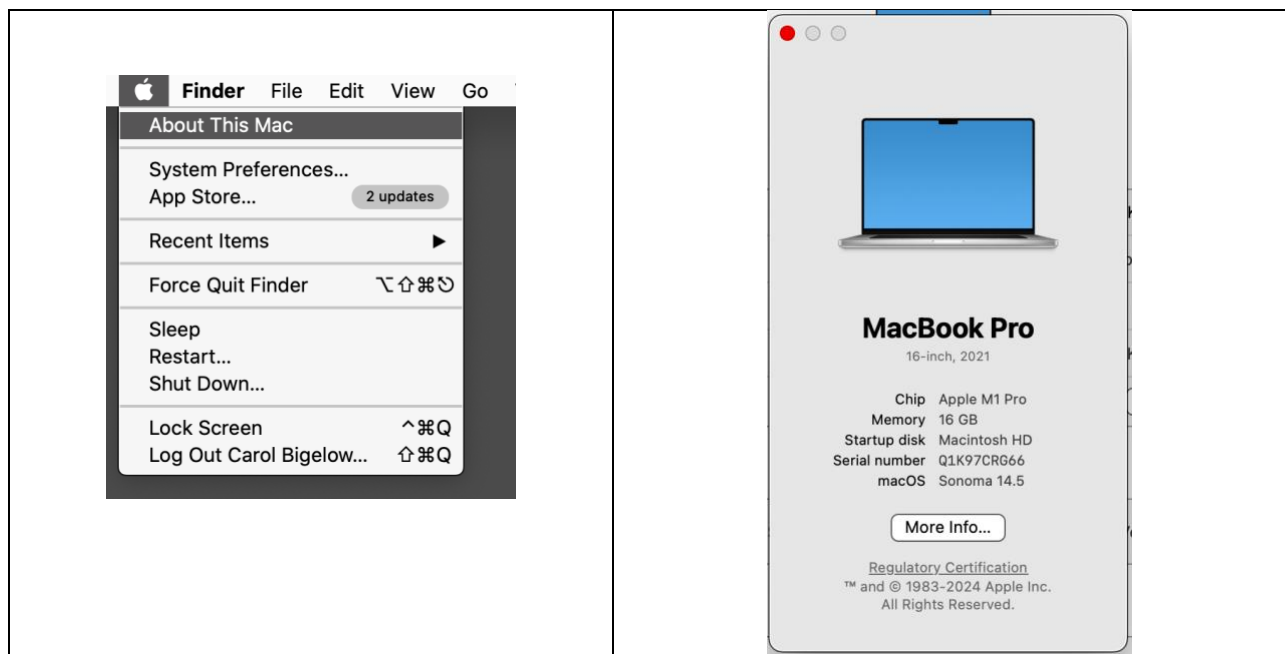
**Preliminary - Consider Watching a Video First**

Mac Users (video, 9:51)

<https://www.youtube.com/watch?v=I5WIMX4LK8M>

**Preliminary – Determine the version of your operating system** (e.g., *I have MAC OS Monterey*)

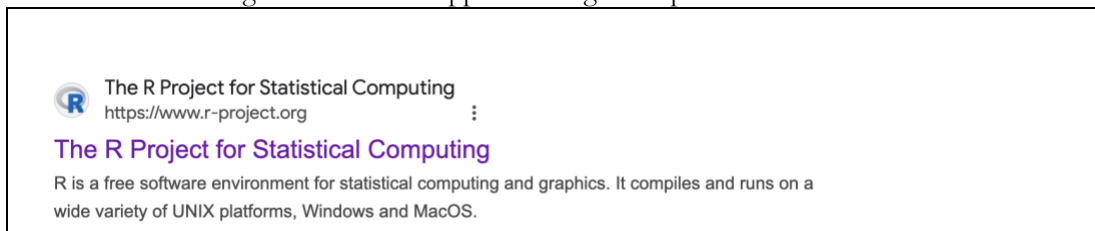
**Why?** If your operating system happens to be an older one, then in installing R you may have to choose an older version of R because your operating system may or may not be able to accommodate the most recent version of R.



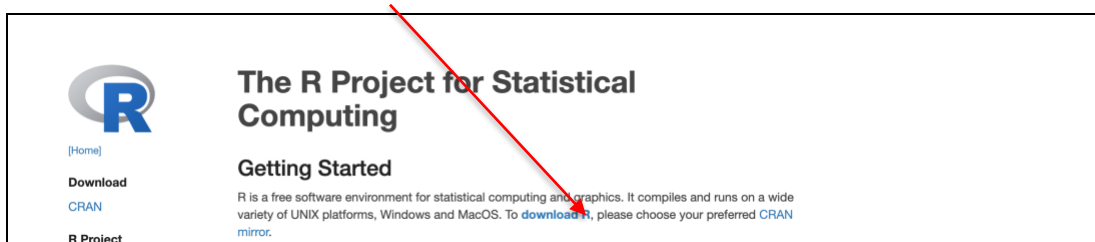
*Example – This tells me that my operating system is macOS Sonoma 14.5*

**PART I** *(must be done before downloading and installing R Studio)***Download and Install R**

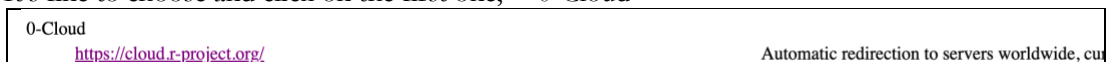
- \_\_\_1. Google "**download r**"  
Click on the following link. It should appear among the top "hits"



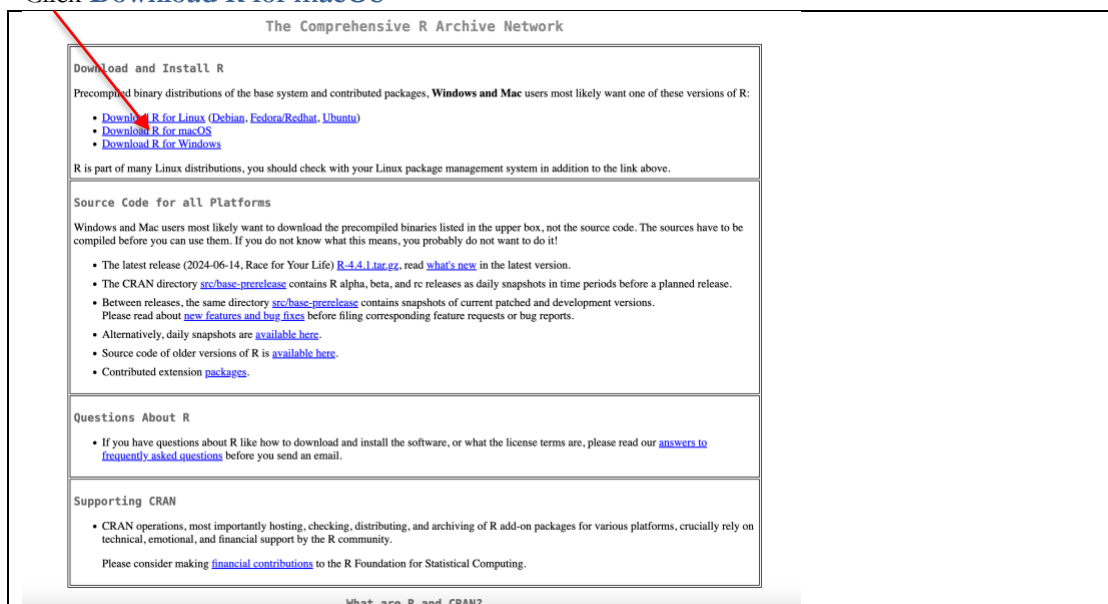
- \_\_\_2. At the top, on the right, in the first paragraph  
Click on following link, **download R**.



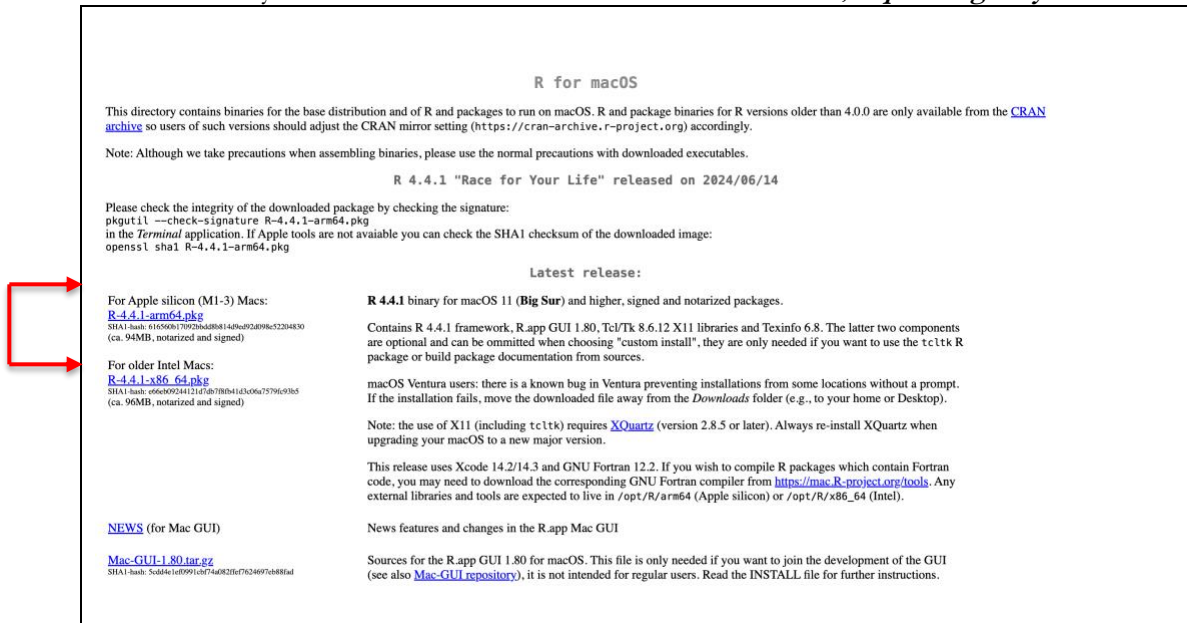
- \_\_\_3. Scroll down to choose a cran mirror.  
It's fine to choose and click on the first one, "0-Cloud"



- \_\_\_4. You should then see the following.  
Click **Download R for macOS**



- \_\_\_5. You should then see the following.  
Here is where you need to decide. Click on the correct download, *depending on your OS*



R for macOS

This directory contains binaries for the base distribution and of R and packages to run on macOS. R and package binaries for R versions older than 4.0.0 are only available from the [CRAN archive](https://cran.r-project.org) so users of such versions should adjust the CRAN mirror setting (<https://cran.r-project.org>) accordingly.

Note: Although we take precautions when assembling binaries, please use the normal precautions with downloaded executables.

R 4.4.1 "Race for Your Life" released on 2024/06/14

Please check the integrity of the downloaded package by checking the signature:  
`pkgutil --check-signature R-4.4.1-arm64.pkg`  
 in the *Terminal* application. If Apple tools are not available you can check the SHA1 checksum of the downloaded image:  
`openssl sha1 R-4.4.1-arm64.pkg`

Latest release:

**For Apple silicon (M1-3) Macs:**  
[R-4.4.1-arm64.pkg](#)  
 SHA1 hash: 610500b17092b0a8081429a092a096c52204830  
 (ca. 94MB, notarized and signed)

**For older Intel Macs:**  
[R-4.4.1-x86\\_64.pkg](#)  
 SHA1 hash: c96e809244121af7b0780b41a3a06a75796c93c5  
 (ca. 96MB, notarized and signed)

[NEWS](#) (for Mac GUI)

[Mac-GUI-1.80.tar.gz](#)  
 SHA1 hash: 5c0d4e1ef0991c0f74d0820c7f624697cd888ad

**R 4.4.1 binary for macOS 11 (Big Sur) and higher, signed and notarized packages.**

Contains R 4.4.1 framework, R.app GUI 1.80, Tcl/Tk 8.6.12 X11 libraries and Texinfo 6.8. The latter two components are optional and can be omitted when choosing "custom install", they are only needed if you want to use the `tcltk` R package or build package documentation from sources.

macOS Ventura users: there is a known bug in Ventura preventing installations from some locations without a prompt. If the installation fails, move the downloaded file away from the *Downloads* folder (e.g., to your home or Desktop).

Note: the use of X11 (including `tcltk`) requires [XQuartz](#) (version 2.8.5 or later). Always re-install XQuartz when upgrading your macOS to a new major version.

This release uses Xcode 14.2/14.3 and GNU Fortran 12.2. If you wish to compile R packages which contain Fortran code, you may need to download the corresponding GNU Fortran compiler from <https://mac.R-project.org/tools>. Any external libraries and tools are expected to live in `/opt/R/arm64` (Apple silicon) or `/opt/R/x86_64` (Intel).

News features and changes in the Rapp Mac GUI

Sources for the Rapp GUI 1.80 for macOS. This file is only needed if you want to join the development of the GUI (see also [Mac-GUI repository](#)), it is not intended for regular users. Read the `INSTALL` file for further instructions.

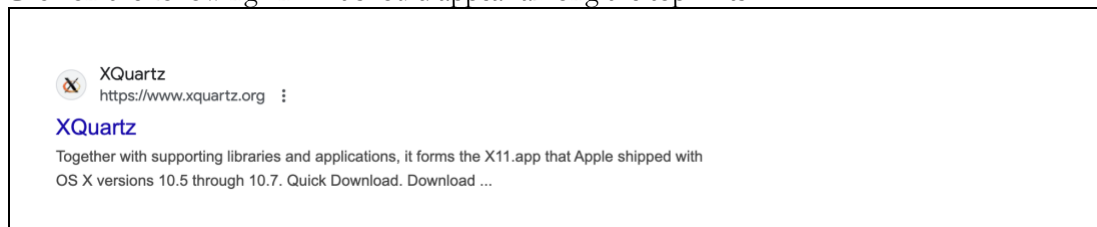
- \_\_\_6. Follow the instructions from here. **Note:** You will need your admin password  
Want to watch some video of this first? Watch the video on page 1, beginning at about 1:00 minute time mark.

All done? At this point you should see the R icon on your dock:

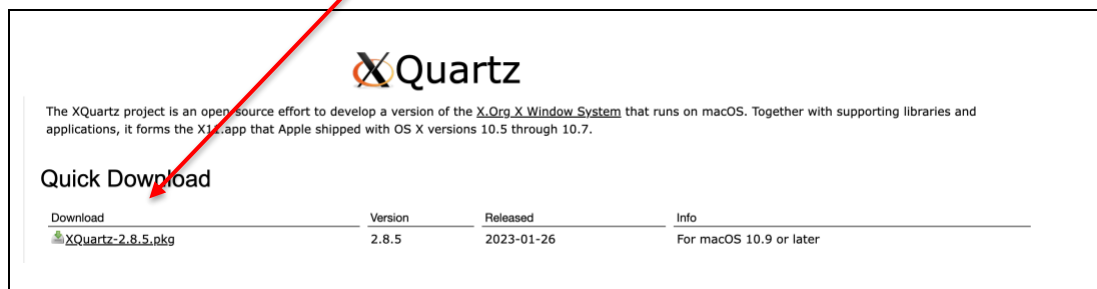


**PART II** *(required for MAC users only)***Download and Install XQuartz**

- \_\_\_1. Google "**download xquartz**"  
Click on the following link. It should appear among the top "hits"



- \_\_\_2. You should see the following  
Click on the Quick Download here.

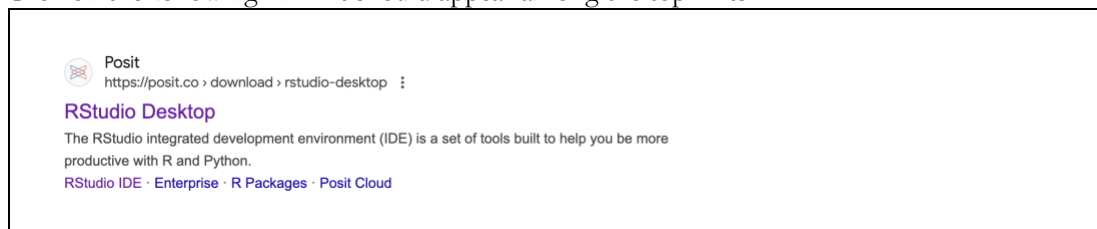


- \_\_\_3. Follow the instructions from here. **Note** - You will need your admin password

**PART III****Download and Install RStudio Desktop**

- \_\_\_1. Google "**download RStudio Desktop**"

Click on the following link. It should appear among the top "hits"



2. You should see the following

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## RStudio Desktop

Used by millions of people weekly, the RStudio integrated development environment (IDE) is a set of tools built to help you be more productive with R and Python.

Don't want to download or install anything? Get started with RStudio on [Posit Cloud for free](#). If you're a professional data scientist looking to download RStudio and also need common enterprise features, don't hesitate to [book a call with us](#).

Want to learn about core or advanced workflows in RStudio? Explore the [RStudio User Guide](#) or the [Getting Started](#) section.

### 1: Install R

RStudio requires R 3.6.0+. Choose a version of R that matches your computer's operating system.

R is not a Posit product. By clicking on the link below to download and install R, you are leaving the Posit website. Posit disclaims any obligations and all liability with respect to R and the R website.

### 2: Install RStudio

[DOWNLOAD RSTUDIO DESKTOP FOR MACOS 11+](#)

This version of RStudio is only supported on macOS 12 and higher. For earlier macOS environments, please [download a previous version](#).

3. Still on this page, scroll down to see lots of download options, as shown here. Click on the download the installation for **macOS 12+**

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RStudio requires a 64-bit operating system.

Linux users may need to import [Posit's public code-signing key](#) prior to installation, depending on the operating system's security policy.

OS	Download	Size	SHA-256
Windows 10/11	<a href="#">RSTUDIO-2024.04.2-764-AMD64-EXE</a>	262.79 MB	<a href="#">09E1E38A</a>
macOS 12+	<a href="#">RSTUDIO-2024.04.2-764-DMG</a>	664.40 MB	<a href="#">D8DD0395</a>
Ubuntu 20/Debian 11	<a href="#">RSTUDIO-2024.04.2-764-AMD64-DEB</a>	194.73 MB	<a href="#">87B20155</a>
Ubuntu 22/Debian 12	<a href="#">RSTUDIO-2024.04.2-764-AMD64-DEB</a>	196.64 MB	<a href="#">1D08D2F5</a>
OpenSUSE 15	<a href="#">RSTUDIO-2024.04.2-764-X86_64-RPM</a>	196.89 MB	<a href="#">CC0E1D88</a>
Fedora 34/Red Hat 8	<a href="#">RSTUDIO-2024.04.2-764-X86_64-RPM</a>	219.85 MB	<a href="#">DC097731</a>
Fedora 36/Red Hat 9	<a href="#">RSTUDIO-2024.04.2-764-X86_64-RPM</a>	210.75 MB	<a href="#">3B140ED7</a>

- \_\_\_4. Double click the ".dmg" file  
Drag the RStudio download to your Applications folder



- \_\_\_5. Click on the RStudio icon and follow the instructions from here.  
Want to watch some video of this first? Watch the video on page 1, beginning at about the 6:00 minute time mark.