When getting started in bioinformatics, R is a great place to start. It is open source and has many packages that have applications for biological data. There is also a community of users that are very active in responding to questions.

R is available at <https://cran.r-project.org/>

A good resource to have is the R manual pages, there is an introduction manual that is available as a PDF and includes some good reference material.

<https://cran.r-project.org/doc/manuals/R-intro.pdf>

Rstudio is a free integrated development environment (IDE) for R that is available on Windows, Mac, and Linux. It is very useful for writing R code since it includes a text editor that will highlight syntax, suggest functions when one is partially entered, show help pages, visualize data, and run code all in one place.

<https://www.rstudio.com/>

To start out it can be very useful to do a tutorial. It is very difficult to start writing code when you’ve only read about it. Swirl is interactive and runs right in Rstudio and has courses on R basics as well as some on data analysis and biostatistics.

<http://swirlstats.com/students.html>

The internet is the best resource when learning to code. When you run into a problem it’s very likely that someone else has had the same problem, or at least a very similar problem. It can be tricky to learn how to search effectively for what you need, how distinguish the good advice from the bad, and how to apply the solutions you find to your specific problem. Fortunately, R has a very active community full of experienced people who are willing to help. Sites like Stack Overflow will show up in most search results and have a voting system where users can vote for the solution that they think answers the question best and the questioner can pick the answer that actually solved their problem. This is a good way to learn what the people who write in R all the time think is the best way to solve a problem.

<https://stackoverflow.com/>

There are other sites that have many tips and advice for solving problems that come up a lot. Sites like R-bloggers provide examples and explainations of things like manipulating plots and data from experts.

<https://www.r-bloggers.com/>

<http://statmethods.net/index.html>