Resources are roughly sorted easiest to advanced, but there is redundancy - some resources will cover the same thing, so don't feel like you have to do everything. I've tried to provide lots of kinds of things to suit different learners.

R Resources:

Getting started with R textbook (in zip file)

R for Data Science by Garrett Grolemund and Hadley Wickham – great online textbook http://r4ds.had.co.nz/

https://swirlstats.com/ learn R in R

https://www.coursera.org/learn/r-programming

https://www.datacamp.com/courses/free-introduction-to-r

Some free courses that I took and thought were ok if you want a formal intro course

https://www.coursera.org/learn/data-cleaning

You can audit this course for free

https://www.kaggle.com/

A website for data science with datasets to play with. This is nice if you are beyond learning R syntax and want to mess with some real data and try writing your own code, because you can see what the community has also written for a dataset.

https://www.r-bloggers.com/in-depth-introduction-to-machine-learning-in-15-hours-of-expert-videos/

Learn R and machine learning at the same time working through this Stanford course

Python Resources:

Automate the Boring Stuff with Python book (in zip file) - also has tons of practical exercises!

https://www.codecademy.com/learn/learn-python

intro to python syntax

https://www.udacity.com/course/intro-to-computer-science--cs101

free course that covers the basics of python; take this before the MITx course if you have little to no background

https://courses.edx.org/courses/course-v1:MITx+6.00.1x 7+3T2015/course/

a nice free followup to the previous course, or a good starting place for people with some background

https://www.codewars.com/collections/basic-python

tasks of varying levels of difficulty to get your feet wet

http://rosalind.info/problems/locations/

learn python through problem solving

https://www.reddit.com/r/learnpython/wiki/index - Links that I have yet to thoroughly explore, although some will overlap with what I have suggested here