**R Resources**

* Books for learning R
  + R for data science (FREE online)
  + For classical stats: Modern Statistics for the Social and Behavioral Sciences: A Practical Introduction
* More advanced R books
  + Advanced R (FREE)
* Statistical modelling
  + Statistical rethinking (FREE)
  + Bayesian Data Analysis
* Machine learning
  + Elements of statistical learning 2e (FREE)
  + Introduction to Statistical Learning 2e (FREE)
  + Statquest youtube channel
  + David Robinson’s youtube channel for learning the tidyverse.
* Interfaces for modelling in R
  + Stan (rstan and cmdstanr packages)
  + TMB
* State of the art modelling software
  + Stan (see rstand and cmdstanr R packages)
  + Template Model Builder for MLE models (TMB R packages)
* Creating your own R packages
  + Fong Chun Chan's Blog: Making your first R package <https://tinyheero.github.io/jekyll/update/2015/07/26/making-your-first-R-package.html>
  + R Packages 2e book (FREE)
* Various R packages to know (these are tried and true packages that have been around for a while
  + For general data wrangling: dplyr
  + For fast data wrangling: data.table (using dtplyr for data.table speed with dplyr syntax).
  + For graphics: ggplot2
  + For String manipulation: stringr
  + For functional programming: purr
  + For portability, and to avoiding set\_wd in every script: here
  + For manipulating spatial raster data: terra
  + For manipulating spatial vector data: sf
  + For machine learning models: tensorflow
  + For statistical modelling: lme4, rstan, TMB
  + For helping you document your code: roxygen2
* Sweave for combining latex typesetting and R graphics
* R Markdown for combining text and R input/output into pdfs or HTMLs
  + “Quarto” is the new R Markdown

Disclaimer: this is a list that is biased towards the author’s academic interests. Topics like big data, SQL& relational databased, web-scrapingg, etc. are not covered.