**R Markdown Workshop Outline**

Merkle Lab Meeting 10/12/2022

1. R Markdown Cheat Sheet
2. R Markdown bible- <https://bookdown.org/yihui/rmarkdown/>
3. Various outputs of RMarkdown (with examples)- <https://rmarkdown.rstudio.com/gallery.html>
4. Molly’s Rmd code documentation example (YNP\_seasons\_NDVI\_snowpack.Rmd)
5. Basic\_Example\_HTML\_Word.Rmd - word and html knitting
6. Interactive HTMLs
   1. html widgets- <http://www.htmlwidgets.org/showcase_leaflet.html>
      1. <http://gallery.htmlwidgets.org/>
      2. social networks- <https://iankloo.github.io/sigmaNet/articles/getting-started.html>
   2. flexdashboard- <https://pkgs.rstudio.com/flexdashboard/index.html>
      1. <https://beta.rstudioconnect.com/jjallaire/htmlwidgets-showcase-storyboard/htmlwidgets-showcase-storyboard.html>
      2. <https://walkerke.shinyapps.io/neighborhood_diversity/#section-explore-metros>
   3. shiny- <https://shiny.rstudio.com/>
      1. <https://jjallaire.shinyapps.io/shiny-ggplot2-brushing/>
      2. using shiny in Rmarkdown intro- <https://garrettgman.github.io/rmarkdown/authoring_shiny.html>
7. Manuscripts: PNAS article example Rmd (rticle package: https://github.com/rstudio/rticles), requires LaTeX for knitting
8. Other useful template packages/resources-
   1. rtemps (good html template)- <https://github.com/bblodfon/rtemps>
   2. good general overview and tables (with table packages)- <https://girke.bioinformatics.ucr.edu/GEN242/tutorials/rmarkdown/rmarkdown/>

**Group activity:**

It’s almost time for Halloween candy (woohoo!), so your task is to use data on 85 different Halloween candies to create a 1) static word report and 2) interactive HTML report on what candy variables may be influencing people’s votes of their favorite candy.

Use the candy\_data\_prep.R code within an R Markdown to load in the candy\_data and candy\_votes datasets. The example code (candy\_example\_MC.Rmd) has code for doing this. The data prep R code will create a single dataset called candy, with the following variables:

* chocolate, fruity, carmel, nuts, nougat, crispedricewafer- 1s for candy that contains these items/flavors, and 0s if it does not
* hard\_candy and bar\_candy- 1s for candy that is a hard or bar candy, 0s if not
* sugar\_percentile- the percentile of sugar content of the candy in relation to all candies in the data
* price\_percentile- the percentile of price of the candy in relation to all candies in the data
* num\_votes- number of votes each candy received as people’s top candy choice.

Word doc formatting (note that most word doc formatting is the same as the html formatting, which is also in this book)- <https://bookdown.org/yihui/rmarkdown/word-document.html>

\*shiny components do not work in word document outputs and will cause errors in knitting