## Session Information

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September 25, 2021

## Obtaining all packages used

Used a handy bash one liner in my main directoy to pull out all the libraries used across all my scripts:

```
find . -type f -name '*.R' | xargs grep -h library > packages.txt
```

## Loading in all the packages

```
library(tidyverse)
## Warning: package 'tidyverse' was built under R version 4.0.3
## -- Attaching packages --------
## v ggplot2 3.3.5
                   v purrr 0.3.4
## v tibble 3.0.3
                   v dplyr 1.0.2
## v tidyr 1.1.1
                 v stringr 1.4.0
## v readr
         1.3.1
                   v forcats 0.5.0
## Warning: package 'ggplot2' was built under R version 4.0.5
## -- Conflicts ------
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()
                  masks stats::lag()
library(broom)
## Warning: package 'broom' was built under R version 4.0.5
library(lme4)
## Warning: package 'lme4' was built under R version 4.0.5
## Loading required package: Matrix
##
## Attaching package: 'Matrix'
## The following objects are masked from 'package:tidyr':
##
##
      expand, pack, unpack
library(ggpubr)
## Warning: package 'ggpubr' was built under R version 4.0.5
library(patchwork)
library(data.table)
```

```
##
## Attaching package: 'data.table'
## The following objects are masked from 'package:dplyr':
##
       between, first, last
##
## The following object is masked from 'package:purrr':
##
       transpose
library(Hmisc)
## Warning: package 'Hmisc' was built under R version 4.0.3
## Loading required package: lattice
## Loading required package: survival
## Loading required package: Formula
## Attaching package: 'Hmisc'
## The following objects are masked from 'package:dplyr':
##
##
       src, summarize
## The following objects are masked from 'package:base':
##
##
       format.pval, units
library(corrplot)
## Warning: package 'corrplot' was built under R version 4.0.3
## corrplot 0.84 loaded
library(gridExtra)
## Warning: package 'gridExtra' was built under R version 4.0.3
##
## Attaching package: 'gridExtra'
## The following object is masked from 'package:dplyr':
##
##
       combine
library(grid)
library(gtable)
library(scales)
##
## Attaching package: 'scales'
## The following object is masked from 'package:purrr':
##
##
       discard
## The following object is masked from 'package:readr':
##
##
       col_factor
```

```
library(tibble)
library(tidyr)
library(dplyr)
library(readr)
library(rrBLUP)
## Warning: package 'rrBLUP' was built under R version 4.0.3
library(MASS)
## Warning: package 'MASS' was built under R version 4.0.3
## Attaching package: 'MASS'
## The following object is masked from 'package:patchwork':
##
##
       area
## The following object is masked from 'package:dplyr':
##
##
       select
library(doSNOW)
## Loading required package: foreach
##
## Attaching package: 'foreach'
## The following objects are masked from 'package:purrr':
##
##
       accumulate, when
## Loading required package: iterators
## Loading required package: snow
Printing Session Info
sessionInfo()
```

```
## R version 4.0.2 (2020-06-22)
## Platform: x86_64-w64-mingw32/x64 (64-bit)
## Running under: Windows 10 x64 (build 18363)
## Matrix products: default
##
## locale:
## [1] LC_COLLATE=English_United States.1252
## [2] LC_CTYPE=English_United States.1252
## [3] LC_MONETARY=English_United States.1252
## [4] LC_NUMERIC=C
## [5] LC_TIME=English_United States.1252
## attached base packages:
                stats graphics grDevices utils
## [1] grid
                                                        datasets methods
## [8] base
##
```

```
## other attached packages:
   [1] doSNOW_1.0.18
                          snow_0.4-3
                                             iterators_1.0.12 foreach_1.5.0
                                             scales 1.1.1
   [5] MASS 7.3-53
                          rrBLUP 4.6.1
                                                               gtable 0.3.0
  [9] gridExtra_2.3
                          corrplot_0.84
                                             Hmisc_4.4-2
                                                               Formula_1.2-3
## [13] survival_3.1-12
                          lattice_0.20-41
                                             data.table_1.13.0 patchwork_1.0.1
## [17] ggpubr 0.4.0
                          lme4 1.1-27.1
                                             Matrix 1.2-18
                                                               broom 0.7.8
## [21] forcats 0.5.0
                          stringr 1.4.0
                                             dplyr 1.0.2
                                                               purrr 0.3.4
                                                               ggplot2_3.3.5
## [25] readr 1.3.1
                          tidyr_1.1.1
                                             tibble_3.0.3
## [29] tidyverse_1.3.0
##
## loaded via a namespace (and not attached):
                            fs_1.5.0
  [1] nlme_3.1-148
                                                 lubridate_1.7.9
   [4] RColorBrewer_1.1-2
                            httr_1.4.2
                                                 tools_4.0.2
  [7] backports_1.1.7
                            R6_2.4.1
                                                 rpart_4.1-15
## [10] DBI_1.1.0
                            colorspace_1.4-1
                                                 nnet_7.3-14
## [13] withr_2.2.0
                            tidyselect_1.1.0
                                                 curl_4.3
## [16] compiler_4.0.2
                            cli_2.0.2
                                                 rvest_0.3.6
## [19] htmlTable 2.1.0
                            xml2 1.3.2
                                                 checkmate 2.0.0
## [22] digest_0.6.27
                            foreign_0.8-80
                                                 minqa_1.2.4
## [25] rmarkdown 2.8
                            rio 0.5.27
                                                 jpeg 0.1-8.1
## [28] base64enc_0.1-3
                            pkgconfig_2.0.3
                                                 htmltools_0.5.1.1
## [31] dbplyr 1.4.4
                            htmlwidgets_1.5.1
                                                 rlang 0.4.11
## [34] readxl_1.3.1
                            rstudioapi_0.11
                                                 generics_0.1.0
## [37] jsonlite 1.7.0
                            zip 2.1.1
                                                 car_3.0-11
## [40] magrittr 1.5
                            Rcpp_1.0.7
                                                 munsell_0.5.0
## [43] fansi_0.4.1
                            abind_1.4-5
                                                 lifecycle 0.2.0
## [46] stringi_1.4.6
                            yaml_2.2.1
                                                 carData_3.0-4
## [49] blob_1.2.1
                            parallel_4.0.2
                                                 crayon_1.3.4
                                                 hms_0.5.3
## [52] haven_2.3.1
                            splines_4.0.2
                            pillar_1.4.6
## [55] knitr_1.29
                                                 boot_1.3-25
## [58] ggsignif_0.6.2
                            codetools_0.2-16
                                                 reprex_0.3.0
## [61]
       glue_1.4.2
                            evaluate_0.14
                                                 latticeExtra_0.6-29
                            vctrs_0.3.8
## [64]
       modelr_0.1.8
                                                 png_0.1-7
## [67] nloptr_1.2.2.2
                            cellranger_1.1.0
                                                 assertthat_0.2.1
## [70] xfun 0.23
                            openxlsx 4.2.3
                                                 rstatix_0.7.0
## [73] cluster_2.1.0
                            ellipsis_0.3.1
```