## Session Info

#### Ivan Jacob Agaloos Pesigan

#### Session

```
sessionInfo()
#> R version 4.3.1 (2023-06-16)
#> Platform: x86_64-pc-linux-gnu (64-bit)
#> Running under: Ubuntu 22.04.2 LTS
#>
#> Matrix products: default
          / usr/lib/x86\_64-linux-gnu/openblas-pthread/libblas.so.3
#> LAPACK: /usr/lib/x86_64-linux-gnu/openblas-pthread/libopenblasp-r0.3.20.so; LAPACK version 3.10
#>
#> locale:
#> [1] LC_CTYPE=en_US.UTF-8
                             LC_NUMERIC=C
   [3] LC_TIME=en_US.UTF-8
                              LC_COLLATE=en_US.UTF-8
#> [5] LC_MONETARY=en_US.UTF-8 LC_MESSAGES=en_US.UTF-8
   [7] LC_PAPER=en_US.UTF-8
                                LC_NAME=C
#> [9] LC_ADDRESS=C
                                  LC_TELEPHONE=C
#> [11] LC_MEASUREMENT=en_US.UTF-8 LC_IDENTIFICATION=C
#>
#> time zone: Etc/UTC
```

```
#> tzcode source: system (glibc)

#>

#> attached base packages:

#> [1] stats graphics grDevices utils datasets methods base

#>

#> loaded via a namespace (and not attached):

#> [1] compiler_4.3.1 rprojroot_2.0.3 tools_4.3.1

#> [4] rProject_0.0.0.9000 highr_0.10 knitr_1.43

#> [7] xfun_0.39 evaluate_0.21
```

### **Packages**

```
unname(installed.packages()[, 1])
#>
     [1] "betaNB"
                          "abind"
                                            "arrow"
                                                              "ash"
                          "assertthat"
                                                              "base64enc"
     [5] "askpass"
                                            "backports"
#>
     [9] "betaDelta"
                          "betaMC"
                                                              "betaSandwich"
                                            "betaNB"
    [13] "BH"
                          "bibtex"
                                                              "bit"
#>
                                            "BiocManager"
    [17] "bit64"
                          "bitops"
                                            "blob"
                                                              "brew"
#>
                          "broom"
    [21] "brio"
                                            "bslib"
                                                              "cachem"
    [25] "callr"
                          "car"
                                            "carData"
                                                              "cellranger"
    [29] "cffr"
                          "checkmate"
                                            "cli"
                                                              "clipr"
#> [33] "clock"
                          "collections"
                                            "colorspace"
                                                              "commonmark"
    [37] "conflicted"
                          "corpcor"
                                                              "cpp11"
                                            "covr"
    [41] "crayon"
                          "credentials"
                                            "curl"
                                                              "cyclocomp"
    [45] "data.table"
                           "DBI"
                                            "dbplyr"
                                                              "desc"
                                            "diagram"
#> [49] "deSolve"
                           "devtools"
                                                              "dials"
```

#>	[53]	"DiceDesign"	"diffobj"	"digest"	"distro"
#>	[57]	"docopt"	"downlit"	"dplyr"	"dtplyr"
#>	[61]	"duckdb"	"dynr"	"ellipsis"	"evaluate"
#>	[65]	"fansi"	"farver"	"fastmap"	"fclust"
#>	[69]	"fda"	"fdrtool"	"fds"	"FNN"
#>	[73]	"fontawesome"	"forcats"	"foreach"	"Formula"
#>	[77]	"fs"	"fst"	"fstcore"	"furrr"
#>	[81]	"future"	"future.apply"	"gargle"	"generics"
#>	[85]	"gert"	"ggplot2"	"gh"	"gitcreds"
#>	[89]	"glasso"	"glmnet"	"globals"	"glue"
#>	[93]	"googledrive"	"googlesheets4"	"gower"	"GPfit"
#>	[97]	"gridExtra"	"gtable"	"gtools"	"hardhat"
#>	[101]	"haven"	"hdrcde"	"highr"	"Hmisc"
#>	[105]	"hms"	"htmlTable"	"htmltools"	"htmlwidgets"
#>	[109]	"httpgd"	"httpuv"	"httr"	"httr2"
#>	[113]	"ids"	"ifaTools"	"igraph"	"infer"
#>	[117]	"ini"	"ipred"	"isoband"	"iterators"
#>	[121]	"jomo"	"jpeg"	"jquerylib"	"jsonlite"
#>	[125]	"jsonvalidate"	"kernlab"	"knitr"	"ks"
#>	[129]	"labeling"	"Lahman"	"languageserver"	"later"
#>	[133]	"latex2exp"	"lava"	"lavaan"	"lazyeval"
#>	[137]	"lhs"	"lifecycle"	"lintr"	"listenv"
#>	[141]	"littler"	"lme4"	"locfit"	"lubridate"
#>	[145]	"magick"	"magrittr"	"markdown"	"MatrixModels"
#>	[149]	"mclust"	"memoise"	"mice"	"microbenchmark"
#>	[153]	"mime"	"miniUI"	"minqa"	"misc3d"
#>	[157]	"mitml"	"mnormt"	"modeldata"	"modelenv"

#>	[161]	"modelr"	"multicool"	"munsell"	"mvtnorm"
#>	[165]	"nloptr"	"numDeriv"	"nycflights13"	"OpenMx"
#>	[169]	"openssl"	"ordinal"	"packrat"	"pan"
#>	[173]	"parallelly"	"parsedate"	"parsnip"	"patchwork"
#>	[177]	"pbapply"	"pbivnorm"	"pbkrtest"	"pcaPP"
#>	[181]	"pdftools"	"pillar"	"pkgbuild"	"pkgconfig"
#>	[185]	"pkgdown"	"pkgload"	"plogr"	"plot3D"
#>	[189]	"plyr"	"png"	"pracma"	"praise"
#>	[193]	"prettyunits"	"printr"	"processx"	"prodlim"
#>	[197]	"profvis"	"progress"	"progressr"	"promises"
#>	[201]	"ps"	"psych"	"purrr"	"qgraph"
#>	[205]	"qpdf"	"quadprog"	"quantreg"	"quarto"
#>	[209]	"R.cache"	"R.methodsS3"	"R.00"	"R.utils"
#>	[213]	"R6"	"ragg"	"rainbow"	"rappdirs"
#>	[217]	"rbibutils"	"rcmdcheck"	"RColorBrewer"	"Rcpp"
		"rbibutils" "RcppArmadillo"	"rcmdcheck" "RcppEigen"	"RColorBrewer" "RcppGSL"	"Rcpp" "RcppParallel"
#>	[221]				
#> #>	[221] [225]	"RcppArmadillo"	"RcppEigen"	"RcppGSL"	"RcppParallel"
#> #> #>	[221] [225] [229]	"RcppArmadillo" "RCurl"	"RcppEigen" "Rdpack"	"RcppGSL" "readr"	"RcppParallel" "readxl"
#> #> #>	[221] [225] [229] [233]	"RcppArmadillo" "RCurl" "recipes"	"RcppEigen" "Rdpack" "RefManageR"	"RcppGSL" "readr" "rematch"	"RcppParallel" "readxl" "rematch2"
#> #> #> #>	[221] [225] [229] [233] [237]	"RcppArmadillo" "RCurl" "recipes" "remotes"	"RcppEigen" "Rdpack" "RefManageR" "reprex"	"RcppGSL" "readr" "rematch" "reshape2"	"RcppParallel" "readxl" "rematch2" "rex"
#> #> #> #> #>	[221] [225] [229] [233] [237] [241]	"RcppArmadillo" "RCurl" "recipes" "remotes" "rhub"	"RcppEigen" "Rdpack" "RefManageR" "reprex" "rlang"	"RcppGSL" "readr" "rematch" "reshape2" "RMariaDB"	"RcppParallel" "readxl" "rematch2" "rex" "rmarkdown"
#> #> #> #> #>	[221] [225] [229] [233] [237] [241] [245]	"RcppArmadillo"  "RCurl"  "recipes"  "remotes"  "rhub"  "roxygen2"  "rprojroot"	"RcppEigen"  "Rdpack"  "RefManageR"  "reprex"  "rlang"  "rpf"	"RcppGSL"  "readr"  "rematch"  "reshape2"  "RMariaDB"  "RPostgres"  "rsconnect"	"RcppParallel" "readxl" "rematch2" "rex" "rmarkdown" "rProject"
#> #> #> #> #> #>	[221] [225] [229] [233] [237] [241] [245] [249]	"RcppArmadillo"  "RCurl"  "recipes"  "remotes"  "rhub"  "roxygen2"  "rprojroot"	"RcppEigen"  "Rdpack"  "RefManageR"  "reprex"  "rlang"  "rpf"  "rsample"	"RcppGSL"  "readr"  "rematch"  "reshape2"  "RMariaDB"  "RPostgres"  "rsconnect"	"RcppParallel" "readxl" "rematch2" "rex" "rmarkdown" "rProject" "RSQLite"
#> #> #> #> #> #>	[221] [225] [229] [233] [237] [241] [245] [245] [249]	"RcppArmadillo"  "RCurl"  "recipes"  "remotes"  "rhub"  "roxygen2"  "rprojroot"  "rstudioapi"	"RcppEigen"  "Rdpack"  "RefManageR"  "reprex"  "rlang"  "rpf"  "rsample"  "rversions"  "scales"	"RcppGSL"  "readr"  "rematch"  "reshape2"  "RMariaDB"  "RPostgres"  "rsconnect"  "rvest"	"RcppParallel" "readxl" "rematch2" "rex" "rmarkdown" "rProject" "RSQLite" "Ryacas"
#> #> #> #> #> #> #> #>	[221] [225] [229] [233] [237] [241] [245] [249] [253] [257]	"RcppArmadillo"  "RCurl"  "recipes"  "remotes"  "rhub"  "roxygen2"  "rprojroot"  "rstudioapi"  "sass"	"RcppEigen"  "Rdpack"  "RefManageR"  "reprex"  "rlang"  "rpf"  "rsample"  "rversions"  "scales"  "shape"	"RcppGSL"  "readr"  "rematch"  "reshape2"  "RMariaDB"  "RPostgres"  "rsconnect"  "rvest"  "selectr"  "shiny"	"RcppParallel" "readxl" "rematch2" "rex" "rmarkdown" "rProject" "RSQLite" "Ryacas" "semmcci"
#> #> #> #> #> #> #> #> #>	[221] [225] [229] [233] [237] [241] [245] [245] [253] [257] [261]	"RcppArmadillo"  "RCurl"  "recipes"  "remotes"  "rhub"  "roxygen2"  "rprojroot"  "rstudioapi"  "sass"  "sessioninfo"	"RcppEigen"  "Rdpack"  "RefManageR"  "reprex"  "rlang"  "rpf"  "rsample"  "rversions"  "scales"  "shape"  "snowfall"	"RcppGSL"  "readr"  "rematch"  "reshape2"  "RMariaDB"  "RPostgres"  "rsconnect"  "rvest"  "selectr"  "shiny"	"RcppParallel" "readxl" "rematch2" "rex" "rmarkdown" "rProject" "RSQLite" "Ryacas" "semmcci" "slider"

#>	[269]	"styler"	"sys"	"systemfonts"	"testthat"
#>	[273]	"textshaping"	"tibble"	"tidymodels"	"tidyr"
#>	[277]	"tidyselect"	"tidyverse"	"timechange"	"timeDate"
#>	[281]	"tinytex"	"tune"	"tzdb"	"ucminf"
#>	[285]	"urlchecker"	"usethis"	"utf8"	"uuid"
#>	[289]	"Λ8"	"vctrs"	"viridis"	"viridisLite"
#>	[293]	"vroom"	"waldo"	"warp"	"whisker"
#>	[297]	"whoami"	"withr"	"workflows"	"workflowsets"
#>	[301]	"xfun"	"xml2"	"xmlparsedata"	"xopen"
#>	[305]	"xtable"	"yaml"	"yardstick"	"zip"
#>	[309]	"base"	"boot"	"class"	"cluster"
#>	[313]	"codetools"	"compiler"	"datasets"	"foreign"
#>	[317]	"graphics"	"grDevices"	"grid"	"KernSmooth"
#>	[321]	"lattice"	"MASS"	"Matrix"	"methods"
#>	[325]	"mgcv"	"nlme"	"nnet"	"parallel"
#>	[329]	"rpart"	"spatial"	"splines"	"stats"
#>	[333]	"stats4"	"survival"	"tcltk"	"tools"
#>	[337]	"utils"			

# References

R Core Team. (2023). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/