## Session Info

#### Ivan Jacob Agaloos Pesigan

### Session

```
sessionInfo()
#> R version 4.4.2 (2024-10-31)
#> Platform: x86_64-pc-linux-gnu
#> Running under: Ubuntu 24.04.1 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-r0.3.26.so; LAPACK version 3.12
#>
#> 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
#> other attached packages:
#> [1] rProject_0.0.17
#>
#> loaded via a namespace (and not attached):
#> [1] backports_1.5.0 R6_2.5.1
                                       lubridate_1.9.4 xfun_0.50
#> [5] magrittr_2.0.3 glue_1.8.0
                                       stringr_1.5.1 knitr_1.49
#> [9] timechange_0.3.0 generics_0.1.3
                                       lifecycle_1.0.4 xml2_1.3.6
#> [13] cli_3.6.3.9002 bibtex_0.5.1
                                       compiler_4.4.2 highr_0.11
#> [17] rprojroot_2.0.4 plyr_1.8.9
                                       httr_1.4.7
                                                       tools_4.4.2
#> [21] evaluate_1.0.3 Rcpp_1.0.13-1
                                       RefManageR_1.4.0 rlang_1.1.4
#> [25] jsonlite_1.8.9 stringi_1.8.4
```

## **Packages**

```
unname(installed.packages()[, 1])
     [1] "betaNB"
                              "abind"
                                                   "arm"
#>
    [4] "arrow"
                              "ash"
                                                   "AsioHeaders"
     [7] "askpass"
                              "assertthat"
                                                   "backports"
#>
    [10] "base64enc"
                                                   "betaMC"
                              "betaDelta"
    [13] "betaNB"
                              "betaSandwich"
                                                   "BH"
    [16] "bibtex"
                              "BiocManager"
                                                   "bit"
```

| #> | [19] | "bit64"             | "bitops"     | "blob"        |
|----|------|---------------------|--------------|---------------|
| #> | [22] | "brew"              | "brio"       | "broom"       |
| #> | [25] | "bslib"             | "cachem"     | "callr"       |
| #> | [28] | "car"               | "caracas"    | "carData"     |
| #> | [31] | "cellranger"        | "cffr"       | "checkmate"   |
| #> | [34] | "cli"               | "clipr"      | "clock"       |
| #> | [37] | "clusterGeneration" | "coda"       | "cOde"        |
| #> | [40] | "collections"       | "colorspace" | "commonmark"  |
| #> | [43] | "conflicted"        | "corpcor"    | "covr"        |
| #> | [46] | "cowplot"           | "cpp11"      | "crayon"      |
| #> | [49] | "credentials"       | "crosstalk"  | "cTMed"       |
| #> | [52] | "ctsem"             | "curl"       | "cyclocomp"   |
| #> | [55] | "data.table"        | "DBI"        | "dbplyr"      |
| #> | [58] | "Deriv"             | "desc"       | "deSolve"     |
| #> | [61] | "devtools"          | "diagram"    | "dials"       |
| #> | [64] | "DiceDesign"        | "diffobj"    | "digest"      |
| #> | [67] | "distributional"    | "distro"     | "doBy"        |
| #> | [70] | "docopt"            | "doFuture"   | "downlit"     |
| #> | [73] | "dplyr"             | "DT"         | "dtplyr"      |
| #> | [76] | "dynr"              | "dynUtils"   | "ellipse"     |
| #> | [79] | "ellipsis"          | "evaluate"   | "expm"        |
| #> | [82] | "fansi"             | "farver"     | "fastDummies" |
| #> | [85] | "fastmap"           | "fclust"     | "fda"         |
| #> | [88] | "fdrtool"           | "fds"        | "fitCTVARMx"  |
| #> | [91] | "fitDTVARMx"        | "FNN"        | "fontawesome" |
| #> | [94] | "forcats"           | "foreach"    | "Formula"     |
| #> | [97] | "fs"                | "fst"        | "fstcore"     |
|    |      |                     |              |               |

| #> | [100] | "furrr"          | "future"       | "future.apply" |
|----|-------|------------------|----------------|----------------|
| #> | [103] | "gargle"         | "generics"     | "gert"         |
| #> | [106] | "ggplot2"        | "ggrepel"      | "gh"           |
| #> | [109] | "gitcreds"       | "glasso"       | "glmnet"       |
| #> | [112] | "globals"        | "glue"         | "googledrive"  |
| #> | [115] | "googlesheets4"  | "gower"        | "GPArotation"  |
| #> | [118] | "GPfit"          | "graphicalVAR" | "gridExtra"    |
| #> | [121] | "gsubfn"         | "gtable"       | "gtools"       |
| #> | [124] | "hardhat"        | "haven"        | "hdrcde"       |
| #> | [127] | "here"           | "highr"        | "Hmisc"        |
| #> | [130] | "hms"            | "htmlTable"    | "htmltools"    |
| #> | [133] | "htmlwidgets"    | "httpgd"       | "httpuv"       |
| #> | [136] | "httr"           | "httr2"        | "ids"          |
| #> | [139] | "ifaTools"       | "igraph"       | "infer"        |
| #> | [142] | "ini"            | "inline"       | "ipred"        |
| #> | [145] | "isoband"        | "iterators"    | "jomo"         |
| #> | [148] | "jpeg"           | "jquerylib"    | "jsonlite"     |
| #> | [151] | "jsonvalidate"   | "kernlab"      | "knitr"        |
| #> | [154] | "ks"             | "labeling"     | "Lahman"       |
| #> | [157] | "languageserver" | "later"        | "latex2exp"    |
| #> | [160] | "lava"           | "lavaan"       | "lazyeval"     |
| #> | [163] | "lhs"            | "lifecycle"    | "lintr"        |
| #> | [166] | "listenv"        | "littler"      | "lme4"         |
| #> | [169] | "locfit"         | "longMI"       | "loo"          |
| #> | [172] | "lubridate"      | "magick"       | "magrittr"     |
| #> | [175] | "markdown"       | "MatrixModels" | "matrixStats"  |
| #> | [178] | "mclust"         | "memoise"      | "metaSEM"      |
|    |       |                  |                |                |

| #> | [181] | "metaVAR"      | "mice"            | "microbenchmark" |
|----|-------|----------------|-------------------|------------------|
| #> | [184] | "mime"         | "miniUI"          | "minqa"          |
| #> | [187] | "mitml"        | "mize"            | "mlVAR"          |
| #> | [190] | "mnormt"       | "modeldata"       | "modelenv"       |
| #> | [193] | "modelr"       | "MplusAutomation" | "multicool"      |
| #> | [196] | "munsell"      | "mvtnorm"         | "nloptr"         |
| #> | [199] | "numDeriv"     | "nycflights13"    | "OpenMx"         |
| #> | [202] | "openss1"      | "ordinal"         | "pan"            |
| #> | [205] | "pander"       | "parallelly"      | "parsnip"        |
| #> | [208] | "patchwork"    | "pbapply"         | "pbivnorm"       |
| #> | [211] | "pbkrtest"     | "pcaPP"           | "pdftools"       |
| #> | [214] | "pillar"       | "pkgbuild"        | "pkgconfig"      |
| #> | [217] | "pkgdown"      | "pkgload"         | "plogr"          |
| #> | [220] | "plyr"         | "png"             | "posterior"      |
| #> | [223] | "pracma"       | "praise"          | "prettyunits"    |
| #> | [226] | "printr"       | "processx"        | "prodlim"        |
| #> | [229] | "profvis"      | "progress"        | "progressr"      |
| #> | [232] | "promises"     | "proto"           | "ps"             |
| #> | [235] | "psych"        | "purrr"           | "qgraph"         |
| #> | [238] | "qpdf"         | "quadprog"        | "quantreg"       |
| #> | [241] | "quarto"       | "QuickJSR"        | "R.cache"        |
| #> | [244] | "R.methodsS3"  | "R.00"            | "R.utils"        |
| #> | [247] | "R6"           | "ragg"            | "rainbow"        |
| #> | [250] | "rappdirs"     | "rbibutils"       | "rcmdcheck"      |
| #> | [253] | "RColorBrewer" | "Rcpp"            | "RcppArmadillo"  |
| #> | [256] | "RcppEigen"    | "RcppGSL"         | "RcppParallel"   |
| #> | [259] | "RcppTOML"     | "RCurl"           | "Rdpack"         |
|    |       |                |                   |                  |

| #> [262] "readr"                       | "readxl"      | "recipes"     |
|--|---------------|---------------|
| #> [265] "RefManageR"                  | "reformulas"  | "rematch"     |
| #> [268] "rematch2"                    | "remotes"     | "reprex"      |
| #> [271] "reshape2"                    | "reticulate"  | "rex"         |
| #> [274] "rhub"                        | "rjags"       | "rlang"       |
| #> [277] "RMariaDB"                    | "rmarkdown"   | "roxygen2"    |
| #> [280] "rpf"                         | "RPostgres"   | "rProject"    |
| #> [283] "rprojroot"                   | "rsample"     | "RSQLite"     |
| #> [286] "rstan"                       | "rstantools"  | "rstudioapi"  |
| #> [289] "rversions"                   | "rvest"       | "Ryacas"      |
| #> [292] "sass"                        | "scales"      | "selectr"     |
| #> [295] "semlbci"                     | "semmcci"     | "sessioninfo" |
| #> [298] "sfd"                         | "shape"       | "shiny"       |
| <pre>#&gt; [301] "simStateSpace"</pre> | "slider"      | "snow"        |
| #> [304] "snowfall"                    | "sourcetools" | "SparseM"     |
| #> [307] "SQUAREM"                     | "StanHeaders" | "statmod"     |
| #> [310] "stringi"                     | "stringr"     | "styler"      |
| #> [313] "symSEM"                      | "sys"         | "systemfonts" |
| #> [316] "tensorA"                     | "testthat"    | "texreg"      |
| #> [319] "textshaping"                 | "tibble"      | "tidymodels"  |
| #> [322] "tidyr"                       | "tidyselect"  | "tidyverse"   |
| #> [325] "timechange"                  | "timeDate"    | "tinytex"     |
| #> [328] "tune"                        | "tzdb"        | "ucminf"      |
| #> [331] "unigd"                       | "urlchecker"  | "usethis"     |
| #> [334] "utf8"                        | "uuid"        | "V8"          |
| #> [337] "vctrs"                       | "viridis"     | "viridisLite" |
| #> [340] "vroom"                       | "waldo"       | "warp"        |
|  |               |               |

| #> | [343] | "whisker"    | "whoami"       | "withr"     |
|----|-------|--------------|----------------|-------------|
| #> | [346] | "workflows"  | "workflowsets" | "xfun"      |
| #> | [349] | "xml2"       | "xmlparsedata" | "xopen"     |
| #> | [352] | "xtable"     | "yaml"         | "yardstick" |
| #> | [355] | "zip"        | "base"         | "boot"      |
| #> | [358] | "class"      | "cluster"      | "codetools" |
| #> | [361] | "compiler"   | "datasets"     | "foreign"   |
| #> | [364] | "graphics"   | "grDevices"    | "grid"      |
| #> | [367] | "KernSmooth" | "lattice"      | "MASS"      |
| #> | [370] | "Matrix"     | "methods"      | "mgcv"      |
| #> | [373] | "nlme"       | "nnet"         | "parallel"  |
| #> | [376] | "rpart"      | "spatial"      | "splines"   |
| #> | [379] | "stats"      | "stats4"       | "survival"  |
| #> | [382] | "tcltk"      | "tools"        | "utils"     |

# References

R Core Team. (2024). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/