## 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
#> BLAS: /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_0.0.18
#>
#> loaded via a namespace (and not attached):
#> [1] backports_1.5.0 R6_2.6.0
                                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
                                   compiler_4.4.2 highr_0.11 httr_1.4.7 tools_4.4.
#> [13] cli_3.6.4.9000 bibtex_0.5.1
#> [17] rprojroot_2.0.4 plyr_1.8.9
                                                     tools_4.4.2
```

## **Packages**

```
unname(installed.packages()[, 1])
                                                 "R.6"
#>
     [1] "cli"
                             "lintr"
     [4] "rProject"
                                                 "abind"
                             "simStateSpace"
   [7] "Amelia"
                             "arm"
                                                 "arrow"
#>
#> [10] "ash"
                             "AsioHeaders"
                                                 "askpass"
                             "backports"
#> [13] "assertthat"
                                                 "base64enc"
#> [16] "betaDelta"
                             "betaMC"
                                                 "betaNB"
#> [19] "betaSandwich"
                                                 "bibtex"
                             "BH"
#> [22] "BiocManager"
                             "bit"
                                                 "bit64"
#> [25] "bitops"
                             "blob"
                                                 "bootStateSpace"
#> [28] "brew"
                             "brio"
                                                 "broom"
#> [31] "bslib"
                             "cachem"
                                                 "callr"
#> [34] "car"
                             "caracas"
                                                "carData"
                                                "checkmate"
#> [37] "cellranger"
                            "cffr"
#> [40] "cli"
                             "clipr"
                                                 "clock"
#> [43] "clusterGeneration" "coda"
                                                 "cOde"
#> [46] "collections" "colorspace"
                                                 "commonmark"
#> [49] "conflicted"
                             "corpcor"
                                                 "covr"
                                                 "crayon"
#> [52] "cowplot"
                             "cpp11"
#> [55] "credentials"
                             "crosstalk"
                                                 "cTMed"
#> [58] "ctsem"
                             "curl"
                                                 "cyclocomp"
#> [61] "data.table"
                             "DBI"
                                                 "dbplyr"
#> [64] "Deriv"
                             "desc"
                                                 "deSolve"
#> [67] "devtools"
                                                 "dials"
                             "diagram"
                                                 "digest"
#> [70] "DiceDesign"
                             "diffobj"
                                                 "doBy"
#> [73] "distributional"
                             "distro"
#> [76] "docopt"
                             "doFuture"
                                                 "downlit"
                             "DT"
#> [79] "dplyr"
                                                 "dtplyr"
                             "dvnr"
#> [82] "duckdb"
                                                 "dynUtils"
#> [85] "ellipse"
                             "ellipsis"
                                                 "evaluate"
                             "fansi"
#> [88] "expm"
                                                 "farver"
#> [91] "fastDummies"
                             "fastmap"
                                                 "fclust"
#> [94] "fda"
                             "fdrtool"
                                                 "fds"
#> [97] "fitCTVARMx"
                             "fitDTVARMx"
                                                 "FNN"
#> [100] "fontawesome"
                             "forcats"
                                                 "foreach"
#> [103] "Formula"
                             "fs"
                                                 "fst"
#> [106] "fstcore"
                             "furrr"
                                                 "future"
#> [109] "future.apply"
                             "gargle"
                                                 "generics"
```

```
#> [112] "gert"
                              "ggplot2"
                                                   "ggrepel"
#> [115] "gh"
                              "gitcreds"
                                                   "glasso"
#> [118] "glmnet"
                              "globals"
                                                   "glue"
#> [121] "googledrive"
                                                   "gower"
                              "googlesheets4"
#> [124] "GPArotation"
                              "GPfit"
                                                   "graphicalVAR"
#> [127] "gridExtra"
                              "gsubfn"
                                                   "gtable"
#> [130] "gtools"
                              "hardhat"
                                                   "haven"
#> [133] "hdrcde"
                              "here"
                                                   "highr"
#> [136] "Hmisc"
                              "hms"
                                                   "htmlTable"
#> [139] "htmltools"
                              "htmlwidgets"
                                                   "httpgd"
#> [142] "httpuv"
                              "httr"
                                                   "httr2"
#> [145] "ids"
                              "ifaTools"
                                                   "igraph"
#> [148] "infer"
                              "ini"
                                                   "inline"
#> [151] "ipred"
                              "isoband"
                                                   "iterators"
#> [154] "jomo"
                              "jpeg"
                                                   "jquerylib"
#> [157] "jsonlite"
                              "jsonvalidate"
                                                   "kernlab"
#> [160] "knitr"
                              "ks"
                                                   "labeling"
#> [163] "Lahman"
                              "languageserver"
                                                   "later"
#> [166] "latex2exp"
                              "lava"
                                                   "lavaan"
#> [169] "lazyeval"
                              "lhs"
                                                   "lifecycle"
#> [172] "lintr"
                              "listenv"
                                                   "littler"
#> [175] "lme4"
                              "locfit"
                                                   "longMI"
#> [178] "loo"
                              "lubridate"
                                                   "magick"
#> [181] "magrittr"
                              "markdown"
                                                   "MatrixModels"
#> [184] "matrixStats"
                              "mclust"
                                                   "memoise"
#> [187] "metaSEM"
                              "metaVAR"
                                                   "mice"
                              "mime"
#> [190] "microbenchmark"
                                                   "miniUI"
#> [193] "minqa"
                              "mitml"
                                                   "mize"
#> [196] "mlVAR"
                              "mnormt"
                                                   "modeldata"
#> [199] "modelenv"
                              "modelr"
                                                   "MplusAutomation"
#> [202] "multicool"
                              "munsell"
                                                   "mvtnorm"
                                                   "nycflights13"
#> [205] "nloptr"
                              "numDeriv"
#> [208] "OpenMx"
                                                   "ordinal"
                              "openssl"
#> [211] "pan"
                                                   "parallelly"
                              "pander"
#> [214] "parsnip"
                                                   "pbapply"
                              "patchwork"
#> [217] "pbivnorm"
                              "pbkrtest"
                                                   "pcaPP"
#> [220] "pdftools"
                              "pillar"
                                                   "pkgbuild"
#> [223] "pkgconfig"
                              "pkgdown"
                                                   "pkgload"
#> [226] "plogr"
                              "plyr"
                                                   "png"
#> [229] "posterior"
                              "pracma"
                                                   "praise"
#> [232] "prettyunits"
                              "printr"
                                                   "processx"
#> [235] "prodlim"
                              "profvis"
                                                   "progress"
#> [238] "progressr"
                              "promises"
                                                   "proto"
#> [241] "ps"
                              "psych"
                                                   "purrr"
#> [244] "qgraph"
                              "qpdf"
                                                   "quadprog"
```

```
"quarto"
#> [247] "quantreg"
                                                    "QuickJSR"
                                                    "R.oo"
#> [250] "R.cache"
                               "R.methodsS3"
#> [253] "R.utils"
                               "R6"
                                                    "ragg"
#> [256] "rainbow"
                               "rappdirs"
                                                    "rbibutils"
#> [259] "rcmdcheck"
                               "RColorBrewer"
                                                    "Rcpp"
#> [262] "RcppArmadillo"
                               "RcppEigen"
                                                    "RcppGSL"
#> [265] "RcppParallel"
                               "RcppTOML"
                                                    "RCurl"
#> [268] "Rdpack"
                               "readr"
                                                    "readxl"
#> [271] "recipes"
                               "RefManageR"
                                                    "reformulas"
#> [274] "rematch"
                               "rematch2"
                                                    "remotes"
#> [277] "reprex"
                               "reshape2"
                                                    "reticulate"
#> [280] "rex"
                               "rhub"
                                                    "rjags"
#> [283] "rlang"
                               "RMariaDB"
                                                    "rmarkdown"
#> [286] "roxygen2"
                               "rpf"
                                                    "RPostgres"
#> [289] "rProject"
                               "rprojroot"
                                                    "rsample"
#> [292] "RSQLite"
                               "rstan"
                                                    "rstantools"
#> [295] "rstudioapi"
                               "rversions"
                                                    "rvest"
#> [298] "Ryacas"
                               "sass"
                                                    "scales"
#> [301] "selectr"
                               "semlbci"
                                                    "semmcci"
#> [304] "sessioninfo"
                               "sfd"
                                                    "shape"
#> [307] "shiny"
                              "simStateSpace"
                                                    "slider"
#> [310] "snow"
                              "snowfall"
                                                    "sourcetools"
#> [313] "SparseM"
                                                    "SQUAREM"
                               "sparsevctrs"
#> [316] "StanHeaders"
                               "statmod"
                                                    "stringi"
#> [319] "stringr"
                              "styler"
                                                    "symSEM"
#> [322] "sys"
                                                    "tensorA"
                               "systemfonts"
#> [325] "testthat"
                               "texreg"
                                                    "textshaping"
#> [328] "tibble"
                               "tidymodels"
                                                    "tidyr"
#> [331] "tidyselect"
                               "tidyverse"
                                                    "timechange"
#> [334] "timeDate"
                               "tinytex"
                                                    "tune"
#> [337] "tzdb"
                               "ucminf"
                                                    "unigd"
#> [340] "urlchecker"
                               "usethis"
                                                    "utf8"
#> [343] "uuid"
                               "V8"
                                                    "vctrs"
#> [346] "viridis"
                               "viridisLite"
                                                    "vroom"
#> [349] "waldo"
                                                    "whisker"
                               "warp"
#> [352] "whoami"
                               "withr"
                                                    "workflows"
#> [355] "workflowsets"
                               "xfun"
                                                    "xm12"
#> [358] "xmlparsedata"
                               "xopen"
                                                    "xtable"
#> [361] "yaml"
                               "yardstick"
                                                    "zip"
#> [364] "base"
                               "boot"
                                                    "class"
#> [367] "cluster"
                               "codetools"
                                                    "compiler"
#> [370] "datasets"
                                                    "graphics"
                               "foreign"
#> [373] "grDevices"
                               "grid"
                                                    "KernSmooth"
#> [376] "lattice"
                               "MASS"
                                                    "Matrix"
#> [379] "methods"
                               "mgcv"
                                                    "nlme"
```

# 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/