Package: semanticfa (via r-universe)

October 27, 2026

Title Semantic Factor Analysis of Language Model Embeddings

Version 0.2.0

Description Performs exploratory factor analysis on language model embeddings of psychological scale items. Embeds item text with sentence transformers or other language models, transforms the embeddings into item-by-item similarity matrices, and extracts latent factor structure via standard exploratory factor analysis. Supports embedding-adapted parallel analysis, several similarity transforms (atomic reversed, SQuID centering, mean-centered Pearson), and fit diagnostics tailored to embedding matrices (TEFI, RMSR, CAF, McDonald's omega). The underlying methods are documented with full citations in the corresponding function help pages. Returns objects compatible with 'psych' and 'EFAtools' workflows.

License GPL (>= 3)

URL https://github.com/devon7y/semanticfa

BugReports https://github.com/devon7y/semanticfa/issues

Depends R (>= 4.1.0)

Imports digest, GPArotation, grDevices, graphics, psych, reticulate (>= 1.41.0), Rtsne, stats, utils, uwot, withr

Suggests EFAtools, jsonlite, EGAnet, httr2, knitr, rmarkdown, testthat (>= 3.0.0)

VignetteBuilder knitr

Config/testthat/edition 3

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.2

Config/pak/sysreqs libpng-dev python3

Repository https://devon7y.r-universe.dev

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