Package 'lulab.utils'

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Title Supporting Functions Maintained by Zhen Lu

Version 1.0.0

Description Miscellaneous functions commonly used by LuLab. This package aims to help more researchers on epidemiology to perform data management and visualization more efficiently.

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URL https://github.com/Leslie-Lu/lulab.utils

BugReports https://github.com/Leslie-Lu/lulab.utils/issues

Encoding UTF-8

RoxygenNote 7.3.2

Imports boot, dplyr, httr2, magrittr, purrr, rappdirs, stringr, utils

Suggests knitr, rmarkdown, spelling, testthat (>= 3.0.0)

VignetteBuilder knitr

Config/testthat/edition 3

Language en-US

NeedsCompilation no

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Repository CRAN

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Contents

check_cha *check_cha*

Description

Check for missing values for character columns

Usage

```
check_cha(col, df, verbose = TRUE)
```

Arguments

col	a character variable name
df	a data.frame
verbose	logical, controlling the output

Details

This function is used to check the distribution of character variables in the data frame.

Value

a distribution table of the character variable in the data frame

Author(s)

Zhen Lu

Examples

```
data("melanoma", package = "boot")
melanoma2 <- melanoma
check_cha('status', melanoma2)
# or
mapply(check_cha,'status', MoreArgs= list(melanoma2))
```

check_wget *check_wget*

Description

Check if wget is installed

Usage

```
check_wget()
```

Details

This function is used to check if wget is installed on the system.

Value

a logical value indicating whether wget is installed

Author(s)

Zhen Lu

Examples

```
check_wget()
```

extract_logistic_model *extract_logistic_model*

Description

Extract results from a fitted model.

Usage

```
extract_logistic_model(
  model,
  markers_name,
  n_independent_metabolites,
  digits,
  effective_size,
  case_size,
  control_size,
  outcome_name
)
```

Arguments

`model`	The fitted logistic model object.
`markers_name`	A character vector of marker names.
`n_independent_metabolites`	The number of independent metabolites.
`digits`	The number of decimal places to round to.
`effective_size`	A numeric vector containing effective sample sizes.
`case_size`	The number of cases.
`control_size`	The number of controls.
`outcome_name`	The name of the outcome variable.

Details

This function extracts relevant results from a fitted logistic model and formats them for reporting.

Value

A named vector containing the extracted results.

`round2` *round2*

Description

Round a number to a specified number of decimal places.

Usage

```
round2(x, digits = digits)
```

Arguments

`x`	The numeric input to be rounded.
`digits`	The number of decimal places to round to, Default: digits

Details

This function rounds the input number to the specified number of decimal places.

Value

The rounded numeric value.

test_mirror *test_mirror*

Description

Test speed of CRAN mirror

Usage

```
test_mirror(region, verbose = TRUE)
```

Arguments

region	a character string, the region of the CRAN mirror, e.g. 'China'
verbose	logical, controlling the output

Details

This function is used to test the speed of CRAN mirror.

Value

a data.frame with the name, URL, and download time of the fastest CRAN mirror

Author(s)

Zhen Lu

Examples

```
test_mirror('China')
```

use_wget *use_wget*

Description

Use wget to download files

Usage

```
use_wget(use = TRUE)
```

Arguments

use	a logical value, controlling the download method

Details

This function is used to set the download method.

Value

a logical value indicating whether wget is used

Author(s)

Zhen Lu

Examples

```
use_wget(use = TRUE)
getOption("download.file.method")
getOption("download.file.extra")
test_url <- "https://eternallybored.org/misc/wget/1.21.4/64/wget.exe"
test_destfile <- tempfile()
download.file(test_url, destfile = test_destfile)
```

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