Package 'wodds'

October 12, 2022

Type Package

Title Calculates Whisker Odds

Version 0.1.0

Description Descriptive statistics for large data tend to be low resolution on the tails. Whisker Odds generate a table of descriptive statistics for large data. This is the same as letter-values, but with an alternative naming of depths which allow for depths beyond 26. For a reference to letter-values see 'Heike Hofmann' and 'Hadley Wickham' and 'Karen Kafadar' (2017) <doi:10.1080/10618600.2017.1305277>.

License MIT + file LICENSE

Encoding UTF-8

RoxygenNote 7.1.2

Imports dplyr, stats, magrittr, tibble, glue, purrr

URL https://github.com/alexhallam/wodds

BugReports https://github.com/alexhallam/wodds/issues

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

NeedsCompilation no

Author Alex Hallam [aut, cre], R. Cody Heimberger [ctb]

Maintainer Alex Hallam <alexhallam6.28@gmail.com>

Repository CRAN

Date/Publication 2022-04-15 10:50:02 UTC

R topics documented:

`get_depth_from_n` *Get depth from sample size*

Description

Calculates the depth given a sample size and alpha level

Usage

```
get_depth_from_n(n, alpha = 0.05)
```

Arguments

`n`	an integer scalar sample size
`alpha`	alpha level such as 0.1, 0.05, 0.01. An alpha of 0.05 would be associated with a 95 percent confidence interval

Value

an integer depth

Examples

```
get_depth_from_n(1e4L, 0.05)
```

`get_n_from_depth` *Get sample size from depth*

Description

Calculates the sample size needed given an alpha level and depth

Usage

```
get_n_from_depth(d, alpha = 0.05, conservative = TRUE)
```

Arguments

`d`	an integer depth
`alpha`	alpha level such as 0.1, 0.05, 0.01. An alpha of 0.05 would be associated with a 95 percent confidence interval
`conservative`	a bool. default is FALSE. If TRUE then a conservative (larger) sample size is returned.

Value

a float sample size

Examples

```
get_n_from_depth(7L, 0.01)
```

`make_wodd_name` *make_wodd_name*

Description

make_wodd_name a private function

Usage

```
make_wodd_name(index)
```

Arguments

`index`	int

Value

A vector

`raw_wodd` *raw_wodd*

Description

raw_wodd a private function

Usage

```
raw_wodd(index)
```

Arguments

`index`	int

Value

A vector

select_wodd_name_from_table *select_wodd_name_from_table*

Description

select_wodd_name_from_table a private function

Usage

```
select_wodd_name_from_table(index)
```

Arguments

index	int

Value

A vector

Examples

```
select_wodd_name_from_table(1L)
```

wodds *Calculate whisker odds*

Description

makes whisker odds

Usage

```
wodds(
  y,
  alpha = 0.05,
  include_tail_area = FALSE,
  include_outliers = FALSE,
  include_depth = FALSE
)
```

Arguments

y	A vector of values
alpha	the alpha level, such as 0.05 which is the compliment of the confidence interval, such as 0.95
include_tail_area	a binary. If true then include a column of tail area 2^(i)
include_outliers	a binary. If true include a column of outliers beyond the last wodd depth
include_depth	a binary. If true include a column indicating the depth of the letter value

Value

A dataframe of wodds

lower_value	lower value
wodd_name	Name of wodd
upper_value	upper value

Examples

```
set.seed(42)
wodds(rnorm(1e4, 0, 1))
```

---

wodd_format *wodd_format*

Description

wodd_format a private function

Usage

```
wodd_format(wodd_name)
```

Arguments

wodd_name	string. "S0", "S1", "M". etc

Value

A string

Index