

Package: wodds (via r-universe)

September 7, 2024

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>](https://doi.org/10.1080/10618600.2017.1305277)

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Encoding UTF-8

LazyData true

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

Repository <https://alexhallam.r-universe.dev>

RemoteUrl <https://github.com/alexhallam/wodds>

RemoteRef HEAD

RemoteSha ea85b5b54e093929219ff8c11a30d0aa893c30e0

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get_depth_from_n	<i>Get depth from sample size</i>
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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	<i>Get sample size from depth</i>
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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)
```

<code>make_wodd_name</code>	<i>make_wodd_name</i>
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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	<i>Calculate whisker odds</i>
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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	<i>wodd_format</i>
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Description

wodd_format a private function

Usage

```
wodd_format(wodd_name)
```

Arguments

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

Value

A string

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