

Package: salty (via r-universe)

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Type Package

Title Turn Clean Data into Messy Data

Version 0.1.1

Description Take real or simulated data and salt it with errors commonly found in the wild, such as pseudo-OCR errors, Unicode problems, numeric fields with nonsensical punctuation, bad dates, etc.

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Depends R (>= 2.10)

Imports assertthat, purrr, stringr

Suggests charlatan, testthat (>= 2.0.0), tibble, covr

Encoding UTF-8

LazyData false

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URL <https://github.com/mdlincoln/salty>

BugReports <https://github.com/mdlincoln/salty/issues>

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

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Contents

| | |
|--------------------------|---|
| inspect_shaker | 2 |
| p_indices | 2 |
| salt | 3 |
| salty | 4 |
| salt_delete | 5 |

Value

An integer vector of indices.

salt

Salt vectors with common data problems

Description

These are easy-to-use wrapper functions that call either [salt_insert](#) (for including new characters) or [salt_replace](#) (for salting that requires replacement of specific characters) with sane defaults.

Usage

```
salt_punctuation(x, p = 0.2, n = 1)
```

```
salt_letters(x, p = 0.2, n = 1)
```

```
salt_whitespace(x, p = 0.2, n = 1)
```

```
salt_digits(x, p = 0.2, n = 1)
```

```
salt_ocr(x, p = 0.2, rep_p = 0.1)
```

```
salt_capitalization(x, p = 0.1, rep_p = 0.1)
```

```
salt_decimal_commas(x, p = 0.1, rep_p = 0.1)
```

Arguments

| | |
|-------|--|
| x | A vector. This will always be coerced to character during salting. |
| p | A number between 0 and 1. Percent of values in x that should be salted. |
| n | A positive integer. Number of times to add new values from insertions into selected values in x manually supply your own list of characters. |
| rep_p | A number between 0 and 1. Probability that a given match should be replaced in one of the selected values. |

Details

For a more fine-grained control over how characters are added and whether , see the documentation for [salt_insert](#), [salt_substitute](#), [salt_replace](#), and [salt_delete](#).

Functions

- `salt_punctuation()`: Punctuation characters
- `salt_letters()`: Upper- and lower-case letters
- `salt_whitespace()`: Spaces
- `salt_digits()`: 0-9
- `salt_ocr()`: Replace some substrings with common OCR problems
- `salt_capitalization()`: Flip capitalization of letters
- `salt_decimal_commas()`: Flip decimals to commas and vice versa

salty

salty: Turn Clean Data Into Messy Data

Description

Insert, delete, replace, and substitute bits of your data with messy values.

Details

Convenient wrappers such as [salt_punctuation](#) are provided for quick access to this package's functionality with simple defaults. For more fine-grained control, use one of the underlying `salt_` functions:

- [salt_insert](#) will insert new characters into some of the values of `x`. All the original characters of the original values will be maintained.
- [salt_substitute](#) will substitute some characters in some of the values of `x` in place of some of the original characters.
- [salt_replace](#) will replace some characters in some of the values of `x`. Unlike [salt_substitute](#), [salt_replace](#) does conditional replacement dependent on the original values of `x`, such as changing capitalization or simulating OCR errors based on certain character combinations.
- [salt_delete](#) will remove some characters in the values of `x`
- [salt_na](#) and [salt_empty](#) will replace some values of `x` with NA or with empty strings.
- [salt_swap](#) replaces entire values of `x` with new strings

| | |
|-------------|--|
| salt_delete | <i>Delete some characters from some values</i> |
|-------------|--|

Description

Delete some characters from some values

Usage

```
salt_delete(x, p = 0.2, n = 1)
```

Arguments

| | |
|---|--|
| x | A vector. This will always be coerced to character during salting. |
| p | A number between 0 and 1. Percent of values in x that should be salted. |
| n | A positive integer. Number of times to add new values from insertions into selected values in x manually supply your own list of characters. |

Value

A character vector the same length as x

Examples

```
x <- c("Lorem ipsum dolor sit amet, consectetur adipiscing elit.",  
      "Nunc finibus tortor a elit eleifend interdum.",  
      "Maecenas aliquam augue sit amet ultricies placerat.")  
  
salt_delete(x, p = 0.5, n = 5)  
  
salt_empty(x, p = 0.5)  
  
salt_na(x, p = 0.5)
```

| | |
|-------------|---|
| salt_insert | <i>Insert new characters into some values in a vector</i> |
|-------------|---|

Description

Inserts a selection of characters into a percentage of values in the supplied vector.

Usage

```
salt_insert(x, insertions, p = 0.2, n = 1)
```

Arguments

| | |
|------------|--|
| x | A vector. This will always be coerced to character during salting. |
| insertions | A shaker function, or a character vector. |
| p | A number between 0 and 1. Percent of values in x that should be salted. |
| n | A positive integer. Number of times to add new values from insertions into selected values in x manually supply your own list of characters. |

Value

A character vector the same length as x

| | |
|---------|---|
| salt_na | <i>Remove entire values from a vector</i> |
|---------|---|

Description

Remove entire values from a vector

Usage

```
salt_na(x, p = 0.2)
```

```
salt_empty(x, p = 0.2)
```

Arguments

| | |
|---|---|
| x | A vector |
| p | A number between 0 and 1. Proportion of values to edit. |

Value

A vector the same length as x

| | |
|--------------|--|
| salt_replace | <i>Replace certain patterns into some values in a vector</i> |
|--------------|--|

Description

Inserts a selection of characters into some values of *x*. Pair [salt_replace](#) with the named vectors in [replacement_shaker](#), or supply your own named vector of replacements. The convenience functions [salt_ocr](#) and [salt_capitalization](#) are light wrappers around [salt_replace](#).

Usage

```
salt_replace(x, replacements, p = 0.1, rep_p = 0.5)
```

Arguments

| | |
|---------------------|--|
| <i>x</i> | A vector. This will always be coerced to character during salting. |
| <i>replacements</i> | A replacement_shaker function, or a named character vector of patterns and replacements. |
| <i>p</i> | A number between 0 and 1. Percent of values in <i>x</i> that should be salted. |
| <i>rep_p</i> | A number between 0 and 1. Probability that a given match should be replaced in one of the selected values. |

Value

A character vector the same length as *x*

Examples

```
x <- c("Lorem ipsum dolor sit amet, consectetur adipiscing elit.",
      "Nunc finibus tortor a elit eleifend interdum.",
      "Maecenas aliquam augue sit amet ultricies placerat.")

salt_replace(x, replacement_shaker$capitalization, p = 0.5, rep_p = 0.2)

salt_ocr(x, p = 1, rep_p = 0.5)
```

| | |
|-----------------|--|
| salt_substitute | <i>Substitute certain characters in a vector</i> |
|-----------------|--|

Description

Substitute certain characters in a vector

Usage

```
salt_substitute(x, substitutions, p = 0.2, n = 1)
```

Arguments

| | |
|---------------|--|
| x | A vector. This will always be coerced to character during salting. |
| substitutions | Values to be substituted in |
| p | A number between 0 and 1. Percent of values in x that should be salted. |
| n | A positive integer. Number of times to add new values from insertions into selected values in x manually supply your own list of characters. |

Value

A character vector the same length as x

Examples

```
x <- c("Lorem ipsum dolor sit amet, consectetur adipiscing elit.",
      "Nunc finibus tortor a elit eleifend interdum.",
      "Maecenas aliquam augue sit amet ultricies placerat.")

salt_substitute(x, shaker$digits, p = 0.5, n = 5)
```

salt_swap

Randomly swap out entire values in a vector

Description

Because swaps can be provided by either a character vector or a function that returns a character vector, `salt_swap` can be fruitfully used in conjunction with the [charlatan::charlatan](#) package to intersperse real data with simulated data.

Usage

```
salt_swap(x, swaps, p = 0.2)
```

Arguments

| | |
|-------|---|
| x | A vector. This will always be coerced to character during salting. |
| swaps | Values to be swapped out |
| p | A number between 0 and 1. Percent of values in x that should be salted. |

Value

A character vector the same length as x

Examples

```
x <- c("Lorem ipsum dolor sit amet, consectetur adipiscing elit.",
      "Nunc finibus tortor a elit eleifend interdum.",
      "Maecenas aliquam augue sit amet ultricies placerat.")

new_values <- c("foo", "bar", "baz")

salt_swap(x, swaps = new_values, p = 0.5)
```

shaker

Get a set of values to use in salt_functions

Description

[shaker](#) contains various character sets to be added to your data using [salt_insert](#) and [salt_substitute](#). [replacement_shaker](#) is for [salt_replace](#), and contains pairlists that replace matched patterns in your data.

Usage

```
shaker

replacement_shaker

available_shakers()
```

Format

An object of class list of length 6.
An object of class list of length 3.

Value

A sampling function that will be called by [salt_insert](#), [salt_substitute](#), or [salt_replace](#).

Examples

```
salt_insert(letters, shaker$punctuation)
available_shakers()
```

Index

* datasets

shaker, 9

available_shakers (shaker), 9

charlatan::charlatan, 8

inspect_shaker, 2

p_indices, 2

replacement_shaker, 7, 9

replacement_shaker (shaker), 9

salt, 3

salt_capitalization, 7

salt_capitalization (salt), 3

salt_decimal_commas (salt), 3

salt_delete, 3, 4, 5

salt_digits (salt), 3

salt_empty, 4

salt_empty (salt_na), 6

salt_insert, 3, 4, 5, 9

salt_letters (salt), 3

salt_na, 4, 6

salt_ocr, 7

salt_ocr (salt), 3

salt_punctuation, 4

salt_punctuation (salt), 3

salt_replace, 3, 4, 7, 7, 9

salt_substitute, 3, 4, 7, 9

salt_swap, 4, 8

salt_whitespace (salt), 3

salty, 4

shaker, 2, 6, 9, 9