Package 'fastDummies'

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Type Package

Title Fast Creation of Dummy (Binary) Columns and Rows from Categorical Variables

Version 1.7.6

Description Creates dummy columns from columns that have categorical variables (character or factor types). You can also specify which columns to make dummies out of, or which columns to ignore. Also creates dummy rows from character, factor, and Date columns. This package provides a significant speed increase from creating dummy variables through model.matrix().

Depends R (>= 2.10)

Imports data.table, tibble, stringr

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Encoding UTF-8

URL https://github.com/jacobkap/fastDummies, https://jacobkap.github.io/fastDummies/

BugReports https://github.com/jacobkap/fastDummies/issues

RoxygenNote 7.3.2

Suggests testthat (>= 2.1.0), knitr, rmarkdown, covr, spelling, dplyr

VignetteBuilder knitr

Language en-US

NeedsCompilation no

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`dummy_cols` *Fast creation of dummy variables*

Description

Quickly create dummy (binary) columns from character and factor type columns in the inputted data (and numeric columns if specified.) This function is useful for statistical analysis when you want binary columns rather than character columns.

Usage

```
dummy_cols(
  .data,
  select_columns = NULL,
  remove_first_dummy = FALSE,
  remove_most_frequent_dummy = FALSE,
  ignore_na = FALSE,
  split = NULL,
  remove_selected_columns = FALSE,
  omit_colname_prefix = FALSE,
  return_generated_variables = FALSE
)
```

Arguments

`.data`	An object with the data set you want to make dummy columns from.
`select_columns`	Vector of column names that you want to create dummy variables from. If NULL (default), uses all character and factor columns.
`remove_first_dummy`	Removes the first dummy of every variable such that only n-1 dummies remain. This avoids multicollinearity issues in models.
`remove_most_frequent_dummy`	Removes the most frequently observed category such that only n-1 dummies remain. If there is a tie for most frequent, will remove the first (by alphabetical order) category that is tied for most frequent.
`ignore_na`	If TRUE, ignores any NA values in the column. If FALSE (default), then it will make a dummy column for value_NA and give a 1 in any row which has a NA value.

split
: A string to split a column when multiple categories are in the cell. For example, if a variable is Pets and the rows are "cat", "dog", and "turtle", each of these pets would become its own dummy column. If one row is "cat, dog", then a split value of "," this row would have a value of 1 for both the cat and dog dummy columns.

remove_selected_columns
: If TRUE (not default), removes the columns used to generate the dummy columns.

omit_colname_prefix
: If TRUE (not default) and ‘length(select_columns) == 1‘, omit pre-pending the name of ‘select_columns‘ to the names of the newly generated dummy columns

return_generated_variables
: If TRUE (not default), returns a vector of the names of the variables that would be generated. Does not modify the inputted data.

Value

A data.frame (or tibble or data.table, depending on input data type) with same number of rows as inputted data and original columns plus the newly created dummy columns.

See Also

dummy_rows For creating dummy rows

Other dummy functions: dummy_columns(), dummy_rows()

Examples

```
crime <- data.frame(
  city = c("SF", "SF", "NYC"),
  year = c(1990, 2000, 1990),
  crime = 1:3
)
dummy_cols(crime)
# Include year column
dummy_cols(crime, select_columns = c("city", "year"))
# Remove first dummy for each pair of dummy columns made
dummy_cols(crime,
  select_columns = c("city", "year"),
  remove_first_dummy = TRUE
)
```

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dummy_columns *Fast creation of dummy variables*

Description

dummy_columns() quickly creates dummy (binary) columns from character and factor type columns in the inputted data. This function is useful for statistical analysis when you want binary columns rather than character columns.

Usage

```
dummy_columns(
  .data,
  select_columns = NULL,
  remove_first_dummy = FALSE,
  remove_most_frequent_dummy = FALSE,
  ignore_na = FALSE,
  split = NULL,
  remove_selected_columns = FALSE,
  omit_colname_prefix = FALSE,
  return_generated_variables = FALSE
)
```

Arguments

`.data`	An object with the data set you want to make dummy columns from.
`select_columns`	Vector of column names that you want to create dummy variables from. If NULL (default), uses all character and factor columns.
`remove_first_dummy`	Removes the first dummy of every variable such that only n-1 dummies remain. This avoids multicollinearity issues in models.
`remove_most_frequent_dummy`	Removes the most frequently observed category such that only n-1 dummies remain. If there is a tie for most frequent, will remove the first (by alphabetical order) category that is tied for most frequent.
`ignore_na`	If TRUE, ignores any NA values in the column. If FALSE (default), then it will make a dummy column for value_NA and give a 1 in any row which has a NA value.
`split`	A string to split a column when multiple categories are in the cell. For example, if a variable is Pets and the rows are "cat", "dog", and "turtle", each of these pets would become its own dummy column. If one row is "cat, dog", then a split value of "," this row would have a value of 1 for both the cat and dog dummy columns.
`remove_selected_columns`	If TRUE (not default), removes the columns used to generate the dummy columns.
`omit_colname_prefix`	If TRUE (not default) and ‘length(select_columns) == 1‘, omit pre-pending the name of ‘select_columns‘ to the names of the newly generated dummy columns
`return_generated_variables`	If TRUE (not default), returns a vector of the names of the variables that would be generated. Does not modify the inputted data.

See Also

`dummy_rows` For creating dummy rows

Other dummy functions: `dummy_cols()`, `dummy_rows()`

Examples

```
crime <- data.frame(
  city = c("SF", "SF", "NYC"),
  year = c(1990, 2000, 1990),
  crime = 1:3
)
dummy_cols(crime)
# Include year column
dummy_cols(crime, select_columns = c("city", "year"))
# Remove first dummy for each pair of dummy columns made
dummy_cols(crime,
  select_columns = c("city", "year"),
  remove_first_dummy = TRUE
)
```

`dummy_rows` *Fast creation of dummy rows*

Description

dummy_rows() quickly creates dummy rows to fill in missing rows based on all combinations of available character, factor, and date columns (if not otherwise specified). This is useful for creating balanced panel data. Columns that are not character, factor, or dates are filled in with NA (or whatever value you specify).

Usage

```
dummy_rows(
  .data,
  select_columns = NULL,
  dummy_value = NA,
  dummy_indicator = FALSE
)
```

Arguments

`.data`	An object with the data set you want to make dummy columns from.
`select_columns`	If NULL (default), uses all character, factor, and Date columns to produce categories to make the dummy rows by. If not NULL, you manually enter a string or vector of strings of columns name(s).
`dummy_value`	Value of the row for columns that are not selected. Default is a value of NA.
`dummy_indicator`	Adds binary column to say if row is dummy or not (i.e. included in original data or not)

Value

A data.frame (or tibble or data.table, depending on input data type) with same number of columns as inputted data and original rows plus the newly created dummy rows

See Also

dummy_cols For creating dummy columns

Other dummy functions: dummy_cols(), dummy_columns()

Examples

```
crime <- data.frame(city = c("SF", "SF", "NYC"),
    year = c(1990, 2000, 1990),
    crime = 1:3)

dummy_rows(crime)
# Include year column
dummy_rows(crime, select_columns = c("city", "year"))
# m=Make dummy value 0
dummy_rows(crime, select_columns = c("city", "year"),
    dummy_value = 0)
# Add a dummy indicator
dummy_rows(crime, select_columns = c("city", "year"),
    dummy_indicator = TRUE)
```

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