# Package 'radiant.data'

September 1, 2016

```
Title Business Analytics using R and Shiny
Version 0.5.21
Date 2016-9-2
Description A platform-independent browser-
      based interface for business analytics in R, based on the Shiny package.
Depends R (>= 3.3.0),
      magrittr (>= 1.5),
      ggplot2 (>= 2.0.0),
      lubridate (>= 1.5.0),
      tidyr (>= 0.6),
      dplyr (>= 0.5)
Imports tibble (>= 1.1),
      broom (>= 0.4.1),
      car (>= 2.1),
      gridExtra (\geq 2.0.0),
      knitr (>= 1.13),
      rmarkdown(>= 0.9.5),
      markdown (>= 0.7.7),
      pryr (>= 0.1.2),
      shiny (>= 0.13.2),
     jsonlite (>= 0.9.17),
      shinyAce (>= 0.2.1),
      psych (>= 1.5.8),
      DT (>= 0.2),
      readr (>= 1.0.0),
      scales (>= 0.4.0),
      curl (>= 1.1.0),
      rstudioapi (>= 0.5),
      import (>= 1.0.0),
      base64enc,
      methods
Suggests testthat (>= 1.0.0),
     covr (>= 1.2.0)
URL https://github.com/radiant-rstats/radiant.data, https:
      //radiant-rstats.github.io/docs
BugReports https://github.com/radiant-rstats/radiant.data/issues
License AGPL-3 | file LICENSE
```

# LazyData true RoxygenNote 5.0.1

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 $\mathsf{add\_class}$ 

Convenience function to add a class

### Description

Convenience function to add a class

### Usage

```
add_class(x, cl)
```

### Arguments

x Object

cl Vector of class labels to add

```
foo <- "some text" %>% add_class("text")
foo <- "some text" %>% add_class(c("text", "another class"))
```

as\_character 5

20	character
as	ciiai ac tei

Wrapper for as.character

### Description

Wrapper for as.character

### Usage

```
as_character(x)
```

#### **Arguments**

Χ

Input vector

```
as_data_frame
```

Exporting as\_data\_frame

### Description

Exporting as\_data\_frame

as_dista	nce
----------	-----

Distance in kilometers or miles between two locations based on lat-long Function based on http://www.movable-type.co.uk/scripts/latlong.html. Uses the haversine formula

#### **Description**

Distance in kilometers or miles between two locations based on lat-long Function based on http://www.movable-type.co.uk/scripts/latlong.html. Uses the haversine formula

### Usage

```
as_distance(lat1, long1, lat2, long2, unit = "km", R = c(km = 6371, miles = 3959)[[unit]])
```

### Arguments

lat1	Latitude of location 1
long1	Longitude of location 1
lat2	Latitude of location 2
long2	Longitude of location 2
unit	Measure kilometers ("km", default) or miles ("miles")
R	Radius of the earth

6 as\_dmy\_hm

#### Value

Distance bewteen two points

#### **Examples**

```
as\_distance(32.8245525, -117.0951632, \ 40.7033127, -73.979681, \ unit = "km") \\ as\_distance(32.8245525, -117.0951632, \ 40.7033127, -73.979681, \ unit = "miles")
```

as\_dmy

Convert input in day-month-year format to date

### Description

Convert input in day-month-year format to date

### Usage

```
as_dmy(x)
```

#### **Arguments**

Х

Input variable

#### Value

Date variable of class Date

#### **Examples**

```
as_dmy("1-2-2014")
```

as\_dmy\_hm

Convert input in day-month-year-hour-minute format to date-time

#### **Description**

Convert input in day-month-year-hour-minute format to date-time

### Usage

```
as_dmy_hm(x)
```

#### **Arguments**

Χ

Input variable

#### Value

Date-time variable of class Date

as\_dmy\_hms 7

### **Examples**

```
as_mdy_hm("1-1-2014 12:15")
```

as\_dmy\_hms

Convert input in day-month-year-hour-minute-second format to datetime

### Description

Convert input in day-month-year-hour-minute-second format to date-time

### Usage

```
as_dmy_hms(x)
```

### Arguments

Х

Input variable

### Value

Date-time variable of class Date

### **Examples**

```
as_mdy_hms("1-1-2014 12:15:01")
```

as\_duration

Wrapper for lubridate's as.duration function. Result converted to numeric

### Description

Wrapper for lubridate's as.duration function. Result converted to numeric

### Usage

```
as_duration(x)
```

### Arguments

х

Time difference

8 as\_hm

as\_factor

Wrapper for as.factor

### Description

Wrapper for as.factor

### Usage

```
as_factor(x)
```

### Arguments

Χ

Input vector

as\_hm

Convert input in hour-minute format to time

### Description

Convert input in hour-minute format to time

### Usage

```
as_hm(x)
```

### Arguments

Х

Input variable

### Value

Time variable of class Period

```
as_hm("12:45")
## Not run:
as_hm("12:45") %>% minute
## End(Not run)
```

as\_hms 9

as\_hms

Convert input in hour-minute-second format to time

### Description

Convert input in hour-minute-second format to time

### Usage

```
as_hms(x)
```

### **Arguments**

Χ

Input variable

#### Value

Time variable of class Period

#### **Examples**

```
as_hms("12:45:00")
## Not run:
as_hms("12:45:00") %>% hour
as_hms("12:45:00") %>% second
## End(Not run)
```

as\_integer

Convert variable to integer avoiding potential issues with factors

### Description

Convert variable to integer avoiding potential issues with factors

### Usage

```
as_integer(x)
```

### Arguments

Х

Input variable

#### Value

Integer

10 as\_mdy

### **Examples**

```
as_integer(rnorm(10))
as_integer(letters)
as_integer(5:10 %>% as.factor)
as.integer(5:10 %>% as.factor)
```

as\_mdy

Convert input in month-day-year format to date

### Description

Convert input in month-day-year format to date

### Usage

```
as_mdy(x)
```

### **Arguments**

х

Input variable

### **Details**

Use as.character if x is a factor

### Value

Date variable of class Date

```
as_mdy("2-1-2014")
## Not run:
as_mdy("2-1-2014") %>% month(label = TRUE)
as_mdy("2-1-2014") %>% week
as_mdy("2-1-2014") %>% wday(label = TRUE)
## End(Not run)
```

as\_mdy\_hm 11

as\_mdy\_hm

Convert input in month-day-year-hour-minute format to date-time

### Description

Convert input in month-day-year-hour-minute format to date-time

### Usage

```
as_mdy_hm(x)
```

### Arguments

Х

Input variable

#### Value

Date-time variable of class Date

### **Examples**

```
as_mdy_hm("1-1-2014 12:15")
```

as\_mdy\_hms

Convert input in month-day-year-hour-minute-second format to datetime

### Description

Convert input in month-day-year-hour-minute-second format to date-time

### Usage

```
as_mdy_hms(x)
```

### Arguments

х

Input variable

### Value

Date-time variable of class Date

```
as_mdy_hms("1-1-2014 12:15:01")
```

12 as\_ymd

as\_numeric

Convert variable to numeric avoiding potential issues with factors

### Description

Convert variable to numeric avoiding potential issues with factors

#### Usage

```
as_numeric(x)
```

### Arguments

Х

Input variable

### Value

Numeric

### **Examples**

```
as_numeric(rnorm(10))
as_numeric(letters)
as_numeric(5:10 %>% as.factor)
as.numeric(5:10 %>% as.factor)
as_numeric(c("1","2"))
```

as\_tibble

Exporting as\_tibble

### Description

Exporting as\_tibble

as\_ymd

Convert input in year-month-day format to date

### Description

Convert input in year-month-day format to date

### Usage

```
as\_ymd(x)
```

### **Arguments**

Х

Input variable

as\_ymd\_hm 13

#### Value

Date variable of class Date

#### **Examples**

```
as_ymd("2013-1-1")
```

as\_ymd\_hm

Convert input in year-month-day-hour-minute format to date-time

### Description

Convert input in year-month-day-hour-minute format to date-time

### Usage

```
as_ymd_hm(x)
```

#### **Arguments**

Х

Input variable

#### Value

Date-time variable of class Date

### Examples

```
as_ymd_hm("2014-1-1 12:15")
```

as\_ymd\_hms

Convert input in year-month-day-hour-minute-second format to datetime

### Description

Convert input in year-month-day-hour-minute-second format to date-time

### Usage

```
as_ymd_hms(x)
```

#### **Arguments**

Χ

Input variable

#### Value

Date-time variable of class Date

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#### **Examples**

```
as_ymd_hms("2014-1-1 12:15:01")
## Not run:
as_ymd_hms("2014-1-1 12:15:01") %>% as.Date
as_ymd_hms("2014-1-1 12:15:01") %>% month
as_ymd_hms("2014-1-1 12:15:01") %>% hour
## End(Not run)
```

avengers

Avengers

### Description

Avengers

#### Usage

```
data(avengers)
```

#### **Format**

A data frame with 7 rows and 4 variables

#### **Details**

List of avengers. The dataset is used to illustrate data merging / joining. Description provided in attr(avengers, "description")

center

Center

### Description

Center

#### Usage

```
center(x, na.rm)
```

### Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

If x is a numberic variable return x - mean(x)

changedata 15

changedata

Change data

### Description

Change data

### Usage

```
changedata(dataset, vars = c(), var_names = names(vars))
```

### Arguments

dataset Name of the dataframe to change

vars New variables to add to the data.frame

var\_names Names for the new variables to add to the data.frame

#### Value

None

ci\_label

Labels for confidence intervals

#### **Description**

Labels for confidence intervals

### Usage

```
ci_label(alt = "two.sided", cl = 0.95)
```

#### Arguments

alt Type of hypothesis ("two.sided", "less", "greater")

cl Confidence level

#### Value

A character vector with labels for a confidence interval

```
ci_label("less",.95)
ci_label("two.sided",.95)
ci_label("greater",.9)
```

16 combinedata

### Description

Values at confidence levels

### Usage

```
ci_perc(dat, alt = "two.sided", cl = 0.95)
```

### **Arguments**

dat	Data
alt	Type of hypothesis ("two.sided","less","greater")
cl	Confidence level

#### Value

A vector with values at a confidence level

### **Examples**

```
ci_perc(0:100, "less",.95)
ci_perc(0:100, "greater",.95)
ci_perc(0:100, "two.sided",.80)
```

combinedata

Combine datasets using dplyr's bind and join functions

### Description

Combine datasets using dplyr's bind and join functions

#### Usage

```
combinedata(dataset, cmb_dataset, by = "", add = "", type = "inner_join",
  name = "", data_filter = "")
```

### Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
cmb_dataset	Dataset name (string) to combine with 'dataset'. This can be a dataframe in the global environment or an element in an r_data list from Radiant
by	Variables used to combine 'dataset' and 'cmb_dataset'
add	Variables to add from 'cmb_dataset'

copy\_all 17

type

The main bind and join types from the dplyr package are provided. **inner\_join** returns all rows from x with matching values in y, and all columns from x and y. If there are multiple matches between x and y, all match combinations are returned. **left\_join** returns all rows from x, and all columns from x and y. If there are multiple matches between x and y, all match combinations are returned. **right\_join** is equivalent to a left join for datasets y and x. **full\_join** combines two datasets, keeping rows and columns that appear in either. **semi\_join** returns all rows from x with matching values in y, keeping just columns from x. A semi join differs from an inner join because an inner join will return one row of x for each matching row of y, whereas a semi join will never duplicate rows of x. **anti\_join** returns all rows from x without matching values in y, keeping only columns from x. **bind\_rows** and **bind\_cols** are also included, as are **intersect**, **union**, and **setdiff**. See <a href="http://radiant-rstats.github.io/docs/data/combine.html">html</a> for further details

name Name for the combined dataset

10000")

#### **Details**

See http://radiant-rstats.github.io/docs/data/combine.html for an example in Radiant

#### Value

If list 'r\_data' exists the combined dataset is added as 'name'. Else the combined dataset will be returned as 'name'

#### **Examples**

```
avengers %>% combinedata(superheroes, type = "bind_cols")
combinedata("avengers", "superheroes", type = "bind_cols")
avengers %>% combinedata(superheroes, type = "bind_rows")
avengers %>% combinedata(superheroes, add = "publisher", type = "bind_rows")
```

copy\_all

Source all package functions

#### **Description**

Source all package functions

#### Usage

```
copy_all(.from)
```

### **Arguments**

.from

The package to pull the function from

18 copy\_from

#### **Details**

Equivalent of source with local=TRUE for all package functions. Adapted from functions by smbache, author of the import package. See <a href="https://github.com/smbache/import/issues/4">https://github.com/smbache/import/issues/4</a> for a discussion. This function will be depracated when (if) it is included in <a href="https://github.com/smbache/import">https://github.com/smbache/import</a>

#### **Examples**

```
copy_all(radiant.data)
```

copy\_from

Source for package functions

#### **Description**

Source for package functions

### Usage

```
copy_from(.from, ...)
```

### Arguments

. from The package to pull the function from

... Functions to pull

#### **Details**

Equivalent of source with local=TRUE for package functions. Written by smbache, author of the import package. See https://github.com/smbache/import/issues/4 for a discussion. This function will be depracated when (if) it is included in https://github.com/smbache/import

```
copy_from(radiant.data, getdata)
```

cv 19

C۷

Coefficient of variation

### Description

Coefficient of variation

### Usage

```
cv(x, na.rm = TRUE)
```

### **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

Coefficient of variation

### **Examples**

```
cv(runif (100))
```

data\_frame

Exporting data\_frame

### Description

Exporting data\_frame

describe

Show dataset desription, if available, in html form in Rstudio viewer or default browser

### Description

Show dataset desription, if available, in html form in Rstudio viewer or default browser

### Usage

```
describe(name)
```

### Arguments

name

Dataset name or a dataframe

20 does\_vary

diamonds

Diamond prices

#### **Description**

Diamond prices

### Usage

```
data(diamonds)
```

#### **Format**

A data frame with 3000 rows and 10 variables

#### **Details**

A sample of 3,000 from the diamonds dataset bundeled with ggplot2. Description provided in attr(diamonds,"description")

does\_vary

Does a vector have non-zero variability?

### Description

Does a vector have non-zero variability?

#### Usage

```
does_vary(x, na.rm = TRUE)
```

### Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

Logical. TRUE is there is variability

```
summarise_each(diamonds, funs(does_vary)) %>% as.logical
```

empty\_level 21

empty_level	Convert categorical variables to factors and deal with empty/missing values (used in pivotr and explore)

### Description

Convert categorical variables to factors and deal with empty/missing values (used in pivotr and explore)

### Usage

```
empty_level(x)
```

### Arguments

Χ

Categorical variable used in table

#### Value

Variable with updated levels

explore

Explore data

### Description

Explore data

### Usage

```
explore(dataset, vars = "", byvar = "", fun = c("mean_rm", "sd_rm"),
  tabfilt = "", tabsort = "", data_filter = "", shiny = FALSE)
```

### Arguments

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an r_data list from Radiant
vars	(Numerical) variables to summaries
byvar	Variable(s) to group data by before summarizing
fun	Functions to use for summarizing
tabfilt	Expression used to filter the table. This should be a string (e.g., "Total $> 10000$ ")
tabsort	Expression used to sort the table (e.g., "-Total")
data_filter	Expression entered in, e.g., Data $>$ View to filter the dataset in Radiant. The expression should be a string (e.g., "price $>$ 10000")
shiny	Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny app

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#### **Details**

See http://radiant-rstats.github.io/docs/data/explore.html for an example in Radiant

#### Value

A list of all variables defined in the function as an object of class explore

#### See Also

```
summary.explore to show summaries
```

### **Examples**

```
result <- explore("diamonds", "price:x")
summary(result)
result <- explore("diamonds", c("price", "carat"), byvar = "cut", fun = c("n_missing", "skew"))
summary(result)
diamonds %>% explore("price", byvar = "cut", fun = c("length", "n_distinct"))
```

factorizer

Convert character to factors as needed

#### **Description**

Convert character to factors as needed

### Usage

```
factorizer(dat, safx = 20)
```

### **Arguments**

dat Data frame

safx Values to levels ratio

#### Value

Data frame with factors

filterdata 23

filterdata

Filter data with user-specified expression

### Description

Filter data with user-specified expression

### Usage

```
filterdata(dat, filt = "")
```

### **Arguments**

dat Data frame to filter

filt Filter expression to apply to the specified dataset (e.g., "price > 10000" if dataset

is "diamonds")

### Value

Filtered data frame

find\_dropbox

Find a user's dropbox folder

### Description

Find a user's dropbox folder

### Usage

```
find_dropbox(account = 1)
```

### Arguments

account

If multiple accounts exist specifies the one to use. By default, the first account

listed is used

#### Value

Path to Dropbox account

24 formatdf

flip

Flip the DT table to put Function, Variable, or Group by on top

#### **Description**

Flip the DT table to put Function, Variable, or Group by on top

#### Usage

```
flip(expl, top = "fun")
```

#### **Arguments**

expl Return value from explore

top The variable (type) to display at the top of the table ("fun" for Function, "var"

for Variable, and "byvar" for Group by. "fun" is the default

#### **Details**

See http://radiant-rstats.github.io/docs/data/explore.html for an example in Radiant

#### See Also

```
explore to generate summaries
make_expl to create the DT table
```

### **Examples**

```
result <- explore("diamonds", "price:x") %>% flip("var")
result <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew")) %>% flip("byvar")
```

formatdf

Format a data.frame with a specified number of decimal places

#### **Description**

Format a data.frame with a specified number of decimal places

#### Usage

```
formatdf(tbl, dec = 3, perc = FALSE, mark = "")
```

### Arguments

tbl	Data.frame

dec Number of decimal places

perc Display numbers as percentages (TRUE or FALSE)

mark Thousand separator

formatnr 25

#### Value

Data.frame for printing

### **Examples**

```
data.frame(x = c("a","b"), y = c(1L, 2L), z = c(-0.0005, 3)) %>% formatdf(dec = 3) data.frame(x = c(1L, 2L), y = c(0.05, 0.8)) %>% formatdf(dec = 2, perc = TRUE)
```

formatnr

Format a number with a specified number of decimal places, thousand sep, and a symbol

#### **Description**

Format a number with a specified number of decimal places, thousand sep, and a symbol

### Usage

```
formatnr(x, sym = "", dec = 2, perc = FALSE, mark = ",")
```

#### **Arguments**

X	Number or vector
sym	Symbol to use
dec	Number of decimal places
perc	Display number as a percentage
mark	Thousand separator

#### Value

Character (vector) in the desired format

```
formatnr(2000, "$")
formatnr(2000, dec = 4)
formatnr(.05, perc = TRUE)
formatnr(c(.1, .99), perc = TRUE)
formatnr(data.frame(a = c(.1, .99)), perc = TRUE)
formatnr(data.frame(a = 1000), sym = "$", dec = 0)
```

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getclass

Get variable class

### Description

Get variable class

### Usage

```
getclass(dat)
```

### Arguments

dat

Dataset to evaluate

#### **Details**

Get variable class information for each column in a data.frame

#### Value

Vector with class information for each variable

### **Examples**

```
getclass(mtcars)
```

getdata

Get data for analysis functions

### Description

Get data for analysis functions

### Usage

```
getdata(dataset, vars = "", filt = "", rows = NULL, na.rm = TRUE)
```

### **Arguments**

dataset	Name of the dataframe
vars	Variables to extract from the dataframe
filt	Filter to apply to the specified dataset. For example "price > 10000" if dataset is "diamonds" (default is "")
rows	Select rows in the specified dataset. For example "1:10" for the first 10 rows or " $n()$ -10: $n()$ " for the last 10 rows (default is NULL)
na.rm	Remove rows with missing values (default is TRUE)

### Value

Data.frame with specified columns and rows

getsummary 27

getsummary

Create data.frame summary

### Description

Create data.frame summary

### Usage

```
getsummary(dat, dc = getclass(dat))
```

### **Arguments**

dat Data.frame

dc Class for each variable

### **Details**

Used in Radiant's Data > Transform tab

glance

Exporting glance from broom

### Description

Exporting glance from broom

indexr

Find index corrected for missing values and filters

### Description

Find index corrected for missing values and filters

### Usage

```
indexr(dataset, vars = "", filt = "")
```

### Arguments

dataset Dataset name
vars Variables to select

filt Data filter

28 is\_empty

 $install\_webshot$ 

Install webshot and phantomjs

### Description

Install webshot and phantomjs

#### Usage

```
install_webshot()
```

inverse

Calculate inverse of a variable

### Description

Calculate inverse of a variable

### Usage

```
inverse(x)
```

### Arguments

Х

Input variable

### Value

1/x

is\_empty

Is a character variable defined

### Description

Is a character variable defined

### Usage

```
is\_empty(x, empty = "\st")
```

### Arguments

x Character value to evaluate

empty Indicate what 'empty' means. Default is empty string (i.e., "")

### Details

Is a variable NULL or an empty string

is\_not 29

#### Value

TRUE if empty, else FALSE

#### **Examples**

```
is_empty("")
is_empty(NULL)
is_empty(NA)
is_empty(c())
is_empty("none", empty = "none")
is_empty("")
is_empty(" ")
is_empty(" something ")
```

is\_not

Convenience function for is.null or is.na

### Description

Convenience function for is.null or is.na

### Usage

```
is_not(x)
```

### **Arguments**

х

Input

### **Examples**

```
is_not(NA)
is_not(NULL)
is_not(c())
```

is\_string

Is input a string?

### Description

Is input a string?

### Usage

```
is_string(x)
```

### **Arguments**

Х

Input

30 kurtosi

#### **Details**

Is input a string

#### Value

TRUE if string, else FALSE

#### **Examples**

```
is_string(" ")
is_string("data")
is_string(c("data","data"))
is_string(NULL)
```

iterms

Create a vector of interaction terms

### Description

Create a vector of interaction terms

### Usage

```
iterms(vars, nway, sep = ":")
```

#### **Arguments**

vars Variables lables to use
nway 2-way (2) or 3-way (3) interactions labels to create
sep Separator between variable names (default is:)

#### Value

Character vector of interaction term labels

#### **Examples**

```
paste0("var", 1:3) %>% iterms(2)
paste0("var", 1:3) %>% iterms(3)
paste0("var", 1:3) %>% iterms(2, sep = ".")
```

kurtosi

Exporting the kurtosi function from the psych package

### Description

Exporting the kurtosi function from the psych package

level\_list 31

level\_list

Generate list of levels and unique values

### Description

Generate list of levels and unique values

### Usage

```
level_list(dat, ...)
```

### Arguments

dat A data.frame

... Unquoted variable names to evaluate

### **Examples**

```
data.frame(a = c(rep("a",5),rep("b",5)), b = c(rep(1,5),6:10)) %>% level_list level_list(mtcars, mpg, cyl)
```

ln

Natural log

### Description

Natural log

### Usage

```
ln(x, na.rm = TRUE)
```

### **Arguments**

x Input variable

na.rm Remove missing values (default is TRUE)

#### Value

Natural log of vector

```
ln(runif(10,1,2))
```

32 loadcsv\_url

loadcsv	Load a csv file with read.csv and read_csv

### Description

Load a csv file with read.csv and read\_csv

### Usage

```
loadcsv(fn, .csv = FALSE, header = TRUE, sep = ",", dec = ".",
    saf = TRUE, safx = 20)
```

### **Arguments**

fn	File name string
.csv	Use read.csv instead of read_csv to load file (default is FALSE)
header	Header in file (TRUE, FALSE)
sep	Use , (default) or ; or \t
dec	Decimal symbol. Use . (default) or ,
saf	Convert character variables to factors if (1) there are less than 100 distinct values (2) there are X (see safx) more values than levels
safx	Values to levels ratio

#### Value

Data frame with (some) variables converted to factors

|--|

### Description

Load a csv file with from a url

### Usage

```
loadcsv_url(csv_url, header = TRUE, sep = ",", dec = ".", saf = TRUE,
    safx = 20)
```

### Arguments

csv_url	URL for the csv file
header	Header in file (TRUE, FALSE)
sep	Use, (default) or; or \t
dec	Decimal symbol. Use . (default) or ,
saf	Convert character variables to factors if (1) there are less than 100 distinct values (2) there are $X$ (see safx) more values than levels
safx	Values to levels ratio

loadr 33

#### Value

Data frame with (some) variables converted to factors

loadr

Load an rda or rds file and add it to the radiant data list (r\_data) if available

### Description

Load an rda or rds file and add it to the radiant data list (r\_data) if available

#### Usage

```
loadr(fn, objname = "")
```

### **Arguments**

fn File name and path as a string. Extension must be either rda or rds

objname Name to use for the data frame. Defaults to the file name

#### Value

Data frame in r\_data or in the calling environment

loadrda\_url

Load an rda file from a url

#### **Description**

Load an rda file from a url

#### Usage

```
loadrda_url(rda_url)
```

### **Arguments**

rda\_url

URL for the csv file

#### Value

Data frame

34 make\_dt

make_dt	Make a pivot tabel in DT	

### Description

Make a pivot tabel in DT

### Usage

```
make_dt(pvt, format = "none", perc = FALSE, dec = 3, searchCols = NULL,
    order = NULL)
```

#### **Arguments**

pvt	Return val	ue from	pivotr

format Show Color bar ("color\_bar"), Heat map ("heat"), or None ("none")

perc Display numbers as percentages (TRUE or FALSE)

dec Number of decimals to show

searchCols Column search and filter. Used to save and restore state

order Column sorting. Used to save and restore state

#### **Details**

See http://radiant-rstats.github.io/docs/data/pivotr.html for an example in Radiant

### See Also

```
pivotr to create the pivot-table using dplyr
summary.pivotr to print a plain text table
```

```
pivotr("diamonds", cvars = "cut") %>% make_dt
pivotr("diamonds", cvars = c("cut","clarity")) %>% make_dt(format = "color_bar")
ret <- pivotr("diamonds", cvars = c("cut","clarity"), normalize = "total") %>%
    make_dt(format = "color_bar", perc = TRUE)
```

make\_expl 35

make_expl	Make a tabel of summary statistics in DT	

#### **Description**

Make a tabel of summary statistics in DT

#### Usage

```
make_expl(expl, top = "fun", dec = 3, searchCols = NULL, order = NULL)
```

#### **Arguments**

expl Return value from explore

top The variable (type) to display at the top of the table ("fun" for Function, "var"

for Variable, and "byvar" for Group by

dec Number of decimals to show

searchCols Column search and filter. Used to save and restore state

order Column sorting. Used to save and restore state

#### **Details**

See http://radiant-rstats.github.io/docs/data/explore.html for an example in Radiant

#### See Also

```
pivotr to create the pivot-table using dplyr summary.pivotr to print a plain text table
```

#### **Examples**

```
tab <- explore("diamonds", "price:x") %>% make_expl
tab <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew")) %>%
    make_expl(top = "byvar")
```

make\_funs

Make a list of functions-as-formulas to pass to dplyr

### **Description**

Make a list of functions-as-formulas to pass to dplyr

#### Usage

```
make_funs(x)
```

#### **Arguments**

Χ

List of functions as strings

36 max\_rm

#### Value

List of functions to pass to dplyr in formula form

### **Examples**

```
make_funs(c("mean", "sum_rm"))
```

make\_train

Generate a variable used to selected a training sample

#### **Description**

Generate a variable used to selected a training sample

### Usage

```
make_train(n = 0.7, nr = 100)
```

### **Arguments**

n Number (or fraction) of observations to label as training

nr Number of rows in the dataset

### Value

0/1 variables for filtering

### **Examples**

```
make_train(.5, 10)
```

 ${\sf max\_rm}$ 

Max with na.rm = TRUE

### Description

Max with na.rm = TRUE

### Usage

```
max_rm(x, na.rm = TRUE)
```

#### **Arguments**

Input variable

na.rm If TRUE missing values are removed before calculation

mean\_rm 37

#### Value

Maximum value

# **Examples**

```
max_rm(runif (100))
```

mean\_rm

 $Mean\ with\ na.rm = TRUE$ 

# Description

Mean with na.rm = TRUE

# Usage

```
mean_rm(x, na.rm = TRUE)
```

# **Arguments**

x Input variable

na.rm

If TRUE missing values are removed before calculation

### Value

Mean value

# **Examples**

```
mean_rm(runif (100))
```

median\_rm

 $Median \ with \ na.rm = TRUE$ 

# Description

Median with na.rm = TRUE

# Usage

```
median_rm(x, na.rm = TRUE)
```

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

38 mode\_rm

#### Value

Median value

# **Examples**

```
median_rm(runif (100))
```

min\_rm

 $Min\ with\ na.rm = TRUE$ 

# Description

Min with na.rm = TRUE

# Usage

```
min_rm(x, na.rm = TRUE)
```

# **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

### Value

Minimum value

# **Examples**

```
min_rm(runif (100))
```

mode\_rm

 $Mode\ with\ na.rm = TRUE$ 

# Description

Mode with na.rm = TRUE

# Usage

```
mode_rm(x, na.rm = TRUE)
```

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

mutate\_each 39

#### Value

Mode value

#### **Examples**

```
mode_rm(diamonds$cut)
```

mutate\_each

Add tranformed variables to a data frame (NSE)

#### **Description**

Add tranformed variables to a data frame (NSE)

### Usage

```
mutate_each(tbl, funs, ..., ext = "")
```

#### **Arguments**

tbl Data frame to add transformed variables to funs Function(s) to apply (e.g., funs(log))
... Variables to transform
ext Extension to add for each variable

# Details

Wrapper for dplyr::mutate\_each that allows custom variable name extensions

### **Examples**

```
mutate_each(mtcars, funs(log), mpg, cyl, ext = "_log")
```

normalize

Normalize a variable x by a variable y

#### **Description**

Normalize a variable x by a variable y

# Usage

```
normalize(x, y)
```

# Arguments

Input variable

y Normalizing variable

40 p05

#### Value

x/y

n\_missing

Number of missing values

# Description

Number of missing values

# Usage

```
n_missing(x)
```

# Arguments

Х

Input variable

#### Value

number of missing values

# **Examples**

```
n_missing(c("a","b",NA))
```

p05

5th percentile

# Description

5th percentile

# Usage

```
p05(x, na.rm = TRUE)
```

# Arguments

х

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

5th percentile

```
p05(rnorm(100))
```

*p*10 41

p10

10th percentile

# Description

10th percentile

# Usage

```
p10(x, na.rm = TRUE)
```

#### **Arguments**

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

10th percentile

# **Examples**

```
p10(rnorm(100))
```

p25

25th percentile

# Description

25th percentile

# Usage

```
p25(x, na.rm = TRUE)
```

# **Arguments**

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

25th percentile

```
p25(rnorm(100))
```

p90

p75

75th percentile

# Description

75th percentile

#### Usage

```
p75(x, na.rm = TRUE)
```

#### **Arguments**

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

75th percentile

# **Examples**

```
p75(rnorm(100))
```

p90

90th percentile

# Description

90th percentile

# Usage

```
p90(x, na.rm = TRUE)
```

# **Arguments**

Χ

Input variable

na.rm

If TRUE missing values are removed before calculation

# Value

90th percentile

```
p90(rnorm(100))
```

*p*95

p95 95th percentile

# Description

95th percentile

# Usage

```
p95(x, na.rm = TRUE)
```

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

95th percentile

# **Examples**

```
p95(rnorm(100))
```

pivotr

Create a pivot table using dplyr

# Description

Create a pivot table using dplyr

# Usage

```
pivotr(dataset, cvars = "", nvar = "None", fun = "mean_rm",
    normalize = "None", tabfilt = "", tabsort = "", data_filter = "",
    shiny = FALSE)
```

# Arguments

dataset	Name of the dataframe to change
cvars	Categorical variables
nvar	Numerical variable
fun	Function to apply to numerical variable
normalize	Normalize the table by "row" total, "column" totals, or overall "total"
tabfilt	Expression used to filter the table. This should be a string (e.g., "Total $> 10000$ ")
tabsort	Expression used to sort the table (e.g., "-Total")
data_filter	Expression used to filter the dataset. This should be a string (e.g., "price $> 10000$ ")
shiny	Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny
	app

44 plot.pivotr

#### **Details**

Create a pivot-table. See http://radiant-rstats.github.io/docs/data/pivotr.html for an example in Radiant

#### **Examples**

```
result <- pivotr("diamonds", cvars = "cut")$tab
result <- pivotr("diamonds", cvars = c("cut","clarity","color"))$tab
result <- pivotr("diamonds", cvars = "cut:clarity", nvar = "price")$tab
result <- pivotr("diamonds", cvars = "cut", nvar = "price")$tab
result <- pivotr("diamonds", cvars = "cut", normalize = "total")$tab</pre>
```

plot.character

Don't try to plot strings

### **Description**

Don't try to plot strings

#### Usage

```
## S3 method for class 'character' plot(x, ...)
```

#### **Arguments**

x A character returned from a function

... Any additional arguments

plot.pivotr

Plot method for the pivotr function

#### **Description**

Plot method for the pivotr function

#### Usage

```
## S3 method for class 'pivotr'
plot(x, type = "dodge", perc = FALSE, flip = FALSE,
    shiny = FALSE, custom = FALSE, ...)
```

print.gtable 45

#### **Arguments**

X	Return value from pivotr
type	Plot type to use ("fill" or "dodge" (default))
perc	Use percentage on the y-axis
flip	Flip the axes in a plot (FALSE or TRUE)
shiny	Did the function call originate inside a shiny app
custom	Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This opion can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and http://docs.ggplot2.org/for options.
	further arguments passed to or from other methods

#### **Details**

See http://radiant-rstats.github.io/docs/data/pivotr for an example in Radiant

#### See Also

```
pivotr to generate summaries
summary.pivotr to show summaries
```

# **Examples**

```
pivotr("diamonds", cvars = "cut") %>% plot
pivotr("diamonds", cvars = c("cut","clarity")) %>% plot
pivotr("diamonds", cvars = c("cut","clarity","color")) %>% plot
```

print.gtable

Print/draw method for grobs produced by gridExtra

#### **Description**

Print/draw method for grobs produced by gridExtra

#### Usage

```
## S3 method for class 'gtable' print(x, ...)
```

### Arguments

x a gtable object

... further arguments passed to or from other methods

#### **Details**

Print method for ggplot grobs created using arrangeGrob. Code is based on https://github.com/baptiste/gridextra/blob/master/inst/testing/shiny.R

46 radiant.data

#### Value

A plot

publishers

Comic publishers

# Description

Comic publishers

# Usage

data(publishers)

#### **Format**

A data frame with 3 rows and 2 variables

#### **Details**

List of comic publishers from <a href="http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet">http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet</a>.

<a href="http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet">httml</a>. The dataset is used to illustrate data merging / joining. Description provided in attr(publishers, "description")</a>

radiant.data

radiant.data

# Description

radiant.data

Launch Radiant in the default browser

# Usage

radiant.data()

### **Details**

See https://radiant-rstats.github.io/docs for documentation and tutorials

render 47

radiant.data-deprecated

 $Deprecated\ function(s)\ in\ the\ radiant.data\ package$ 

# Description

These functions are provided for compatibility with previous versions of radiant. They will eventually be removed.

# Usage

```
dfprint(...)
```

#### **Arguments**

... Parameters to be passed to the updated functions

#### **Details**

dfprint is now a synonym for formatdf nrprint is now a synonym for formatnr

render

Method to render objects (i.e., htmlwidgets and rmarkdown files)

# Description

Method to render objects (i.e., htmlwidgets and rmarkdown files)

# Usage

```
render(object, ...)
```

# Arguments

object Object of relevant class to render

... Additional arguments

48 rounddf

render.character

Method to render rmarkdown documents

#### **Description**

Method to render rmarkdown documents

#### Usage

```
## S3 method for class 'character'
render(object, ...)
```

# Arguments

object File path to an R-markdown file

. . . Additional arguments passed on to rmarkdown::render

render.datatables

Method to render DT tabels

#### **Description**

Method to render DT tabels

### Usage

```
## S3 method for class 'datatables'
render(object, ...)
```

# Arguments

object DT table plot

... Additional arguments

rounddf

Round double in a data.frame to a specified number of decimal places

# Description

Round double in a data.frame to a specified number of decimal places

#### Usage

```
rounddf(tbl, dec = 3)
```

### **Arguments**

tbl Data frame

dec Number of decimal places

rownames\_to\_column 49

#### Value

Data frame with rounded doubles

# **Examples**

```
data.frame(x = c("a","b"), y = c(1L, 2L), z = c(-0.0005, 3.1)) %>% rounddf(dec = 3)
```

rownames\_to\_column

Exporting rownames\_to\_column from tibble

# Description

Exporting rownames\_to\_column from tibble

saver

Save data.frame as an rda or rds file from Radiant

# Description

Save data.frame as an rda or rds file from Radiant

# Usage

```
saver(objname, file)
```

# Arguments

objname Name of the data frame

file File name and path as a string. Extension must be either rda or rds

# Value

Data frame in r\_data

50 sd\_rm

sdp\_rm

Standard deviation for the population na.rm = TRUE

# Description

Standard deviation for the population na.rm = TRUE

### Usage

```
sdp_rm(x, na.rm = TRUE)
```

#### **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

# Value

Standard deviation for the population

### **Examples**

```
sdp_rm(rnorm(100))
```

sd\_rm

 $Standard\ deviation\ with\ na.rm = TRUE$ 

# Description

Standard deviation with na.rm = TRUE

# Usage

```
sd_rm(x, na.rm = TRUE)
```

# **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

# Value

Standard deviation

```
sd_rm(rnorm(100))
```

se 51

se

Standard error

#### **Description**

Standard error

# Usage

```
se(x, na.rm = TRUE)
```

# **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

Standard error

### **Examples**

```
se(rnorm(100))
```

Search

Search for a string in all columns of a data.frame

# Description

Search for a string in all columns of a data.frame

# Usage

```
Search(pattern, df, ignore.case = TRUE, fixed = FALSE)
```

# Arguments

pattern String to match df Data.frame to search

ignore.case Should search be case sensitive or not (default is FALSE) fixed Allow regular expersions or not (default is FALSE)

#### **Details**

See http://radiant-rstats.github.io/docs/data/view.html for an example in Radiant

# See Also

See grep1 for a more detailed description of the function arguments

52 show\_duplicated

set\_attr

Alias used to add an attribute

### **Description**

Alias used to add an attribute

#### Usage

```
set_attr(x, which, value)
```

# **Arguments**

χ	Object
---	--------

which Attribute name value Value to set

#### **Examples**

```
foo <- data.frame(price = 1:5) %>% set_attr("desc", "price set in experiment ...")
```

show\_duplicated

Show all rows with duplicated values (not just the first or last)

# Description

Show all rows with duplicated values (not just the first or last)

#### Usage

```
show_duplicated(tbl, ...)
```

### **Arguments**

Data frame to add transformed variables toVariables used to evaluate row uniqueness

# **Details**

If an entire row is duplicated use "duplicated" to show only one of the duplicated rows. When using a subset of variables to establish uniqueness it may be of interest to show all rows that have (some) duplicate elements

```
bind_rows(mtcars, mtcars[c(1,5,7),]) %>%
  show_duplicated(mpg, cyl)
bind_rows(mtcars, mtcars[c(1,5,7),]) %>%
  show_duplicated
```

sig\_stars 53

sig\_stars

Add stars '\*\*\*' to a data.frame (from broom's 'tidy' function) based on p.values

# Description

Add stars '\*\*\*' to a data.frame (from broom's 'tidy' function) based on p.values

# Usage

```
sig_stars(pval)
```

# **Arguments**

pval

Vector of p-values

#### **Details**

Add stars to output from broom's 'tidy' function

# Value

A vector of stars

# **Examples**

```
sig_stars(c(.0009, .049, .009, .4, .09))
```

skew

Exporting the skew function from the psych package

# Description

Exporting the skew function from the psych package

54 sshh

square

Calculate square of a variable

# Description

Calculate square of a variable

# Usage

```
square(x)
```

# Arguments

Χ

Input variable

# Value

x^2

sshh

Hide warnings and messages and return invisible

# Description

Hide warnings and messages and return invisible

# Usage

```
sshh(...)
```

# **Arguments**

... Inputs to keep quite

# **Details**

Adapted from http://www.onthelambda.com/2014/09/17/fun-with-rprofile-and-customizing-r-startup/

```
sshh( library(dplyr) )
```

sshhr 55

sshhr

Hide warnings and messages and return result

# Description

Hide warnings and messages and return result

# Usage

```
sshhr(...)
```

# **Arguments**

... Inputs to keep quite

#### **Details**

Adapted from http://www.onthelambda.com/2014/09/17/fun-with-rprofile-and-customizing-r-startup/

# **Examples**

```
sshhr( library(dplyr) )
```

standardize

Standardize

# Description

Standardize

# Usage

```
standardize(x, na.rm = TRUE)
```

# **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

# Value

If x is a numberic variable return center(x) / mean(x)

56 store.data.frame

store

Method to store variables in a dataset in Radiant

#### **Description**

Method to store variables in a dataset in Radiant

# Usage

```
store(object, ...)
```

#### **Arguments**

object Object of relevant class that has required information to store
... Additional arguments

store.data.frame

Store method for the Data > View tab

# Description

Store method for the Data > View tab

# Usage

```
## S3 method for class 'data.frame'
store(object, new = "", org = "",
    envir = parent.frame(), ...)
```

# Arguments

object	Filtered data frame from the Data > View tab
new	Name of the new dataset
org	Name of the original data
envir	Environment to assign 'new' dataset (optional). Used if 'new' is specified but an $r\_data$ list is not available
	further arguments passed to or from other methods

#### **Details**

Store data frame in Radiant r\_data list if available

store.explore 57

store.explore	Store method for the explore function

#### **Description**

Store method for the explore function

#### Usage

```
## S3 method for class 'explore'
store(object, name, top = "fun", ...)
```

#### **Arguments**

object Return value from explore name Name to assign to the dataset

top The variable (type) to display at the top of the table
... further arguments passed to or from other methods

#### **Details**

Add the summarized data to the r\_data list in Radiant or return it. See http://radiant-rstats.github.io/docs/data/explore.html for an example in Radiant

#### See Also

explore to generate summaries

summary.explore Summary method for the explore function

# Description

Summary method for the explore function

### Usage

```
## S3 method for class 'explore'
summary(object, top = "fun", dec = 3, ...)
```

#### **Arguments**

object Return value from explore

top The variable (type) to display at the top of the table

dec Number of decimals to show

... further arguments passed to or from other methods

58 summary.pivotr

#### **Details**

See http://radiant-rstats.github.io/docs/data/explore.html for an example in Radiant

#### See Also

explore to generate summaries

#### **Examples**

```
result <- explore("diamonds", "price:x")
summary(result)
result <- explore("diamonds", "price", byvar = "cut", fun = c("length", "skew"))
summary(result)
diamonds %>% explore("price:x") %>% summary
diamonds %>% explore("price", byvar = "cut", fun = c("length", "skew")) %>% summary
```

summary.pivotr

Summary method for pivotr

### Description

Summary method for pivotr

#### Usage

```
## S3 method for class 'pivotr'
summary(object, perc = FALSE, dec = 3, chi2 = FALSE,
    shiny = FALSE, ...)
```

#### **Arguments**

object	Return value from pivotr
perc	Display numbers as percentages (TRUE or FALSE)
dec	Number of decimals to show
chi2	If TRUE calculate the chi-square statistic for the (pivot) table
shiny	Did the function call originate inside a shiny app
	further arguments passed to or from other methods

#### **Details**

See http://radiant-rstats.github.io/docs/data/pivotr.html for an example in Radiant

### See Also

pivotr to create the pivot-table using dplyr

sum\_rm 59

### **Examples**

```
pivotr("diamonds", cvars = "cut") %>% summary(chi2 = TRUE)
pivotr("diamonds", cvars = "cut", tabsort = "-n") %>% summary
pivotr("diamonds", cvars = "cut", tabfilt = "n > 700") %>% summary
pivotr("diamonds", cvars = "cut:clarity", nvar = "price") %>% summary
```

 ${\tt sum\_rm}$ 

 $Sum\ with\ na.rm = TRUE$ 

#### **Description**

Sum with na.rm = TRUE

### Usage

```
sum_rm(x, na.rm = TRUE)
```

#### **Arguments**

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

Sum of input values

### **Examples**

```
sum_rm(1:200)
```

superheroes

Super heroes

# Description

Super heroes

# Usage

data(superheroes)

# **Format**

A data frame with 7 rows and 4 variables

#### **Details**

List of super heroes from <a href="http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet.html">http://stat545-ubc.github.io/bit001\_dplyr-cheatsheet.html</a>. The dataset is used to illustrate data merging / joining. Description provided in attr(superheroes, "description")

60 tidy

table2data

Create data.frame from a table

# Description

Create data.frame from a table

# Usage

```
table2data(dat, freq = tail(colnames(dat), 1))
```

# Arguments

dat Data.frame

freq Column name with frequency information

# **Examples**

```
data.frame(price = c("$200","$300"), sale = c(10, 2)) %>% table2data
```

tibble

Exporting tibble

# Description

Exporting tibble

tidy

Exporting tidy from broom

# Description

Exporting tidy from broom

titanic 61

titanic

Survival data for the Titanic

# Description

Survival data for the Titanic

# Usage

```
data(titanic)
```

#### **Format**

A data frame with 1043 rows and 10 variables

# **Details**

Survival data for the Titanic. Description provided in attr(titanic, "description")

varp\_rm

 $Variance\ for\ the\ population\ na.rm = TRUE$ 

# Description

Variance for the population na.rm = TRUE

# Usage

```
varp_rm(x, na.rm = TRUE)
```

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

#### Value

Variance for the population

```
varp_rm(rnorm(100))
```

62 viewdata

var\_rm

 $Variance\ with\ na.rm = TRUE$ 

# Description

Variance with na.rm = TRUE

# Usage

```
var_rm(x, na.rm = TRUE)
```

# Arguments

x Input variable

na.rm If TRUE missing values are removed before calculation

# Value

Variance

# **Examples**

```
var_rm(rnorm(100))
```

viewdata

View data

# Description

View data

# Usage

```
viewdata(dataset, vars = "", filt = "", rows = NULL, na.rm = FALSE)
```

# Arguments

dataset	Name of the dataframe to change
vars	Variables to show (default is all)
filt	Filter to apply to the specified dataset. For example "price $> 10000$ " if dataset is "diamonds" (default is "")
rows	Select rows in the specified dataset. For example "1:10" for the first 10 rows or " $n()-10:n()$ " for the last 10 rows (default is NULL)
na.rm	Remove rows with missing values (default is FALSE)

# Details

View, search, sort, etc. your data

visualize 63

#### **Examples**

```
if (interactive()) {
  viewdata(mtcars)
  viewdata("mtcars")
  mtcars %>% viewdata
}
```

visualize

Visualize data using ggplot2 http://docs.ggplot2.org/current/

# Description

Visualize data using ggplot2 http://docs.ggplot2.org/current/

# Usage

```
visualize(dataset, xvar, yvar = "", comby = FALSE, combx = FALSE,
  type = "dist", facet_row = ".", facet_col = ".", color = "none",
  fill = "none", bins = 10, smooth = 1, fun = "mean", check = "",
  axes = "", alpha = 0.5, data_filter = "", shiny = FALSE,
  custom = FALSE)
```

# **Arguments**

dataset	Dataset name (string). This can be a dataframe in the global environment or an element in an $r$ _data list from Radiant
xvar	One or more variables to display along the X-axis of the plot
yvar	Variable to display along the Y-axis of the plot (default = "none")
comby	Combine yvars in plot (TRUE or FALSE, FALSE is the default)
combx	Combine xvars in plot (TRUE or FALSE, FALSE is the default)
type	Type of plot to create. One of Distribution ('dist'), Density ('density'), Scatter ('scatter'), Surface ('surface'), Line ('line'), Bar ('bar'), or Box-plot ('box')
facet_row	Create vertically arranged subplots for each level of the selected factor variable
facet_col	Create horizontally arranged subplots for each level of the selected factor variable
color	Adds color to a scatter plot to generate a 'heat map'. For a line plot one line is created for each group and each is assigned a different color
fill	Display bar, distribution, and density plots by group, each with a different color. Also applied to surface plots to generate a 'heat map'
bins	Number of bins used for a histogram (1 - 50)
smooth	Adjust the flexibility of the loess line for scatter plots
fun	Set the summary measure for line and bar plots when the X-variable is a factor (default is "mean"). Also used to plot an error bar in a scatter plot when the X-variable is a factor. Options are "mean" and/or "median"
check	Add a regression line ("line"), a loess line ("loess"), or jitter ("jitter") to a scatter plot

64 weighted.sd

Flip the axes in a plot ("flip") or apply a log transformation (base e) to the y-axis ("log\_y") or the x-axis ("log\_x")

alpha Opacity for plot elements (0 to 1)

data\_filter Expression used to filter the dataset. This should be a string (e.g., "price > 10000")

shiny Logical (TRUE, FALSE) to indicate if the function call originate inside a shiny app

custom Logical (TRUE, FALSE) to indicate if ggplot object (or list of ggplot objects) should be returned. This opion can be used to customize plots (e.g., add a title, change x and y labels, etc.). See examples and http://docs.ggplot2.org/for options.

#### **Details**

See http://radiant-rstats.github.io/docs/data/visualize.html for an example in Radiant

#### Value

Generated plots

#### **Examples**

```
visualize("diamonds", "carat", "price", type = "scatter", check = "loess")
visualize("diamonds", "price:x", type = "dist")
visualize("diamonds", "carat:x", yvar = "price", type = "scatter")
visualize(dataset = "diamonds", yvar = "price", xvar = c("cut","clarity"),
    type = "bar", fun = "median")
visualize(dataset = "diamonds", yvar = "price", xvar = c("cut","clarity"),
    type = "line", fun = "max")
visualize(dataset = "diamonds", yvar = "price", xvar = "carat", type = "scatter", custom = TRUE) +
    ggtitle("A scatterplot") + xlab("price in $")
visualize(dataset = "diamonds", xvar = "price:carat", custom = TRUE) %>%
{.[[1]] + ggtitle("A histogram") + xlab("price in $")}
diamonds %>% visualize(c("price", "carat", "depth"), type = "density")
visualize(dataset = "diamonds", xvar = "cut", yvar = "price", type = "bar",
    facet_row = "cut", fill = "cut", custom = FALSE)
visualize(dataset = "diamonds", xvar = "cut", yvar = "price", type = "line",
    facet_row = "cut", color = "cut", custom = FALSE)
```

weighted.sd

Weighted standard deviation

#### **Description**

Weighted standard deviation

#### Usage

```
weighted.sd(x, wt, na.rm = TRUE)
```

which.pmax 65

#### **Arguments**

x Numeric vector

wt Numeric vector of weights

na.rm Remove missing values (default is TRUE)

#### **Details**

Calculated a weighted standard deviation

which.pmax

Returns the index of the (parallel) maxima of the input values

# Description

Returns the index of the (parallel) maxima of the input values

#### Usage

```
which.pmax(...)
```

#### **Arguments**

... Numeric or character vectors of the same length

#### Value

Vector of rankings

### **Examples**

```
which.pmax(1:10, 10:1) which.pmax(2, 10:1)
```

which.pmin

Returns the index of the (parallel) minima of the input values

# Description

Returns the index of the (parallel) minima of the input values

# Usage

```
which.pmin(...)
```

#### **Arguments**

... Numeric or character vectors of the same length

xtile

#### Value

Vector of rankings

# **Examples**

```
which.pmin(1:10, 10:1) which.pmin(2, 10:1)
```

xtile

Create a quintile (or decile) index

# Description

Create a quintile (or decile) index

# Usage

```
xtile(x, n, rev = FALSE)
```

# Arguments

x Numeric variablen number of bins to create

rev Reverse the order of the xtiles

# **Details**

Same as stata

```
xtile(1:10,5)
xtile(1:10,5, rev = TRUE)
```

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