Package: anibehavr (via r-universe)

September 3, 2024

Title Analyse Animal Behaviours

Version 0.1.0

Description What the package does (one paragraph).

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Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.1

Imports dplyr, forcats, janitor, magrittr, purrr, tidyr, tidyselect, zoo, data.table, rlang, hms

Suggests ggplot2, testthat (>= 3.0.0)

Config/testthat/edition 3

URL http://www.roald-arboel.com/anibehavr/

Repository https://roaldarbol.r-universe.dev

RemoteUrl https://github.com/roaldarbol/anibehavr

RemoteRef HEAD

RemoteSha 947b692219944b1e7cacd9a5b1fbc06dbe8d1b65

Contents

`add_logticks` *Add logticks*

Description

Add logticks

Usage

```
add_logticks(
  base = 10,
  sides = "bl",
  scaled = TRUE,
  short = unit(0.1, "cm"),
  mid = unit(0.2, "cm"),
  long = unit(0.3, "cm"),
  colour = "black",
  size = 0.5,
  linetype = 1,
  alpha = 1,
  color = NULL,
  data = data.frame(x = NA),
  ...
)
```

Arguments

`base`	Base
`sides`	Sides
`scaled`	Scaled
`short`	Short
`mid`	Mid

long	Long
colour	Colour
size	Size
linetype	Linetype
alpha	Alpha
color	Color
data	Data
...	Other

Value

Added logticks

`assign_video` *Assign video*

Description

Assign video

Usage

```
assign_video(track_list, animal_ids, tracker = c("trex", "idtrackerai"))
```

Arguments

track_list	List from video files
animal_ids	Animal ids

Value

track_list

classify_states *Classify states Across Time-scales*

Description

Classify states Across Time-scales

Usage

```
classify_states(data, movement_var, window_widths, .keep = FALSE)
```

Arguments

data	Data frame
movement_var	Binary (1/0) variable to be used for the classification
window_widths	Window width for the filter
.keep	Keep both intermediate filter components (forward/backward)

Value

Data frame with classifications

compress_observations *Compress observations*

Description

Get an average of your data where the output is n rows (approximately).

Arguments

data	Data
n_observations	Number of observations in output data frame
group	grouping variable

Value

Smaller data frame where values are means of N observations

compress_observations2 *Compress observations2*

Description

Get an average of your data where the output is n rows (approximately).

Arguments

data	Data
vars	Variables to mean
n_observations	Number of observations in output data frame
group	grouping variable

Value

Smaller data frame where values are means of N observations

correct_time *Correct time*

Description

Correct time

Usage

```
correct_time(data)
```

Arguments

data

Value

A data frame where times are added.

csv_clean *csv_clean*

Description

csv_clean

Usage

```
csv_clean(df, tracker = c("trex", "idtrackerai"))
```

Arguments

df	Raw TRex csv file

Value

df

filter_classifications *Filter Classifications*

Description

Filter Classifications

Usage

```
filter_classifications(data, window_widths)
```

Arguments

data	Data frame
window_widths	Minimum duration of bout

Value

Filtered data frame

filter_forward_backward *Forward-backward Filter*

Description

Forward-backward Filter

Usage

```
filter_forward_backward(data, movement_var, window_width)
```

Arguments

data	Data frame
group	

find_position *Find position*

Description

Find position

Usage

```
find_position(df, exp_setup = c("wellplate", "tube"), animal_ids)
```

Arguments

df	track_list of data frames.
exp_setup	Experimental setup, eith "wellplate " or "tube".
animal_ids	Vector of animal IDs, as strings.

Value

A single tibble

generete_state_numbers *Generate bout numbers for binary variable*

Description

Generate bout numbers for binary variable

Usage

```
generete_state_numbers(data, var, .keep = FALSE)
```

Arguments

data	Data frame
var	Variable name (in quotes)
.keep	Keep both intermediate filter components (forward/backward)

Value

Data frame with classifications

identify_periods *IDENTIFY PERIODS OF INTEREST*

Description

IDENTIFY PERIODS OF INTEREST

Usage

```
identify_periods(data, var, newvar, threshold = "minmax", as_factor = FALSE)
```

Arguments

data	Data frame
var	Variable to be identified
newvar	New variable name
threshold	Method for thresholding. Either "minmax", "mediansd" or a number.
as_factor	Whether an output should be returned as factor

Value

Thresholded data frame

inf_remove *Title*

Description

Title

Usage

```
inf_remove(df)
```

Arguments

df	Data frame

Value

A data frame without Inf values

inverse_ecdf *inverse_ecdf*

Description

inverse_ecdf

Usage

```
inverse_ecdf(data, col, min_length, rest_state = FALSE)
```

Arguments

data	A data frame (e.g. a tibble)
col	Variable to make the density function for.
min_length	Minimal starting duration in frames
rest_state	Whether to make the ecdf for resting or active periods. TRUE or FALSE (default)

Value

Inverse ECDF

is_moving *is_moving*

Description

is_moving

Usage

```
is_moving(df, type, n_frames = 50)
```

Arguments

df	Data frame.
type	Use mean or median.
n_frames	Number of frames used to generate rolling average.

Value

Data frame with a value for whether the animal is moving

join_timeseries *Ensure that grouping levels match across data frames - add an error/warning if not.*

Description

Ensure that grouping levels match across data frames - add an error/warning if not.

Usage

```
join_timeseries(
  .x,
  y,
  by = NULL,
  group = NULL,
  method = NA,
  copy = FALSE,
  suffix = c("", ".y"),
  keep = NULL
)
```

merge_videos *Merge videos*

Description

Merges data sets for consecutive videos for each animal.

Usage

```
merge_videos(df_list)
```

Arguments

df_list	List of data frames

Value

Merged data frame from list

min_max_norm *Min-max normalisation*

Description

Min-max normalisation

Usage

```
min_max_norm(x)
```

Arguments

x	

Value

Normalisation

mode_nonnumeric *Non-numeric mode*

Description

Non-numeric mode

Usage

```
mode_nonnumeric(x)
```

Arguments

x	Vector to find the mode over

Value

Mode

read_align_all_data *Title*

Description

Title

Usage

```
read_align_all_data(filenames, bin_seconds)
```

Arguments

filenames	Filenames
bin_seconds	Bin duration in seconds

Value

Aligned data frame

read_align_data *Title*

Description

Title

Usage

```
read_align_data(data, bin_seconds, time, animal_id)
```

Arguments

bin_seconds	Bin duration in seconds
filename	Filenames

Value

Aligned data frame

read_switch_data *Title*

Description

Title

Usage

```
read_switch_data(filenames, bin_seconds, time_radius = FALSE)
```

Arguments

filenames	Filenames
bin_seconds	Bin duration in seconds
time_radius	Radius around change

Value

Switch data

subset_around_event *Subset Around Event*

Description

Subset Around Event

Usage

```
subset_around_event(data, var, from, time_var, time_radius = FALSE)
```

Arguments

data	Data frame
var	Variable to center around
from	Reference point (e.g. "Day"/"Night")
time_var	Which variable represents time
time_radius	Time around point

Value

Subset of data frame around point in time

sync_time *Sync time*

Description

Sync time

Usage

```
sync_time(.data, data2, x, y)
```

Arguments

.data	Data frame or tibble
data2	The second data frame
x	Parameter used to merge (often time)
y	Variable to be synced along with x

Value

Tibble

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