Package: autoplotly (via r-universe)

August 30, 2024

Type Package

Title Automatic Generation of Interactive Visualizations for
Statistical Results

Version 0.1.4

Description Functionalities to automatically generate interactive
visualizations for statistical results supported by
'ggfortify', such as time series, PCA, clustering and survival
analysis, with 'plotly.js' <https://plotly.com/> and 'ggplot2'
style. The generated visualizations can also be easily extended
using 'ggplot2' and 'plotly' syntax while staying interactive.

License GPL-2

URL https://github.com/terrytangyuan/autoplotly

BugReports https://github.com/terrytangyuan/autoplotly/issues

Encoding UTF-8

Depends R (>= 3.1)

Imports methods, ggplot2, plotly, ggfortify

Roxygen list(markdown = TRUE)

RoxygenNote 7.0.2

VignetteBuilder knitr

Suggests testthat, knitr, markdown

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

RemoteUrl https://github.com/terrytangyuan/autoplotly

RemoteRef HEAD

RemoteSha f4d05d764e7e4dd6e7b0bcaf8c373e9eb112eb02

Contents

---

autoplotly	*Automatic Visualization of Popular Statistical Results Using 'plotly.js' and 'ggplot2'*

Description

This function provides functionality to automatically generate interactive plot for many popular statistical results supported by 'ggfortify' package using 'plotly.js' and 'ggplot2'.

This package provides functionalities to automatically generate interactive visualizations for many popular statistical results supported by ggfortify package with 'plotly.js' and 'ggplot2' style. The generated plot can also be easily extended using 'ggplot2' and 'plotly' syntax while staying interactive.

Usage

```
autoplotly(
  object,
  ...,
  width = NULL,
  height = NULL,
  tooltip = "all",
  dynamicTicks = FALSE,
  layerData = 1,
  originalData = TRUE,
  source = "A",
  widths = NULL,
  heights = NULL,
  margin = 0.02,
  shareX = TRUE,
  shareY = TRUE,
  titleX = shareX,
  titleY = shareY,
  which_layout = "merge"
)
```

Arguments

object	The object that represents your statistical result, e.g. `stats::prcomp(iris[-5])`.
...	Arguments passed to `ggfortify::autoplot` function for the applied object. For example, if your object is constructed from `stats::prcomp(iris[-5])`, you can find the documentation for the list of additional arguments via `?ggfortify:::autoplot.prcomp`
width	Width of the plot in pixels (optional, defaults to automatic sizing).
height	Height of the plot in pixels (optional, defaults to automatic sizing).
tooltip	a character vector specifying which aesthetic mappings to show in the tooltip. The default, "all", means show all the aesthetic mappings (including the unofficial "text" aesthetic). The order of variables here will also control the order

they appear. For example, use `tooltip = c("y", "x", "colour")` if you want y first, x second, and colour last.

dynamicTicks	should plotly.js dynamically generate axis tick labels? Dynamic ticks are useful for updating ticks in response to zoom/pan interactions; however, they can not always reproduce labels as they would appear in the static ggplot2 image.
layerData	data from which layer should be returned?
originalData	should the "original" or "scaled" data be returned?
source	a character string of length 1. Match the value of this string with the source argument in `event_data()` to retrieve the event data corresponding to a specific plot (shiny apps can have multiple plots).
widths	relative width of each column on a 0-1 scale. By default all columns have an equal relative width.
heights	relative height of each row on a 0-1 scale. By default all rows have an equal relative height.
margin	either a single value or four values (all between 0 and 1). If four values are provided, the first is used as the left margin, the second is used as the right margin, the third is used as the top margin, and the fourth is used as the bottom margin. If a single value is provided, it will be used as all four margins.
shareX	should the x-axis be shared amongst the subplots?
shareY	should the y-axis be shared amongst the subplots?
titleX	should x-axis titles be retained?
titleY	should y-axis titles be retained?
which_layout	adopt the layout of which plot? If the default value of "merge" is used, layout options found later in the sequence of plots will override options found earlier in the sequence. This argument also accepts a numeric vector specifying which plots to consider when merging.

Examples

```
# Automatically generate interactive plot for results produced by `stats::prcomp`
p <- autoplotly(prcomp(iris[c(1, 2, 3, 4)]), data = iris,
                colour = 'Species', label = TRUE, label.size = 3, frame = TRUE)

# You can apply additional ggplot2 elements to interactive plot built using `autoplotly()`
p +
  ggplot2::ggtitle("Principal Components Analysis") +
  ggplot2::labs(y = "Second Principal Components", x = "First Principal Components")

# Or apply additional plotly elements to the generated interactive plot
p %>% plotly::layout(annotations = list(
  text = "Example Text",
  font = list(
    family = "Courier New, monospace",
    size = 18,
    color = "black"),
  x = 0,
  y = 0,
  showarrow = TRUE))
```

Index