Package: GoogleImage2Array (via r-universe)

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Type Package

Title Create Array Data from 2D Image Thumbnails via Google Image Search

Version 0.99.7

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Depends R (>= 4.1.0)

Imports xml2, rvest, EBImage, magrittr, spiralize, magick, rTensor

Suggests testthat

Description Images are provided as an array dataset of 2D image thumbnails from Google Image Search <https://www.google.com/search>. This array data may be suitable for a training data of machine learning or deep learning as a first trial.

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URL https://kumes.github.io/GoogleImage2Array/

RoxygenNote 7.1.2

Encoding UTF-8

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

RemoteUrl https://github.com/kumes/googleimage2array

RemoteRef HEAD

RemoteSha fd86aeb5049ddb97ce306b486637c44926f01f8d

Contents

bind.array *bind.array: bind two 4d arrays to one 4d array.*

Description

This function is to bind two arrays to one array along the first dimension, which obtained by the GoogleImage2array function.

Usage

```
bind.array(x, y)
```

Arguments

x	a list obtained by the GoogleImage2array function.
y	a list obtained by the GoogleImage2array function.

Value

array

Author(s)

Satoshi Kume

Examples

```
library(EBImage)

# Simple examples
query <- "persian cat"
CatImg <- GoogleImage2array(query)

query <- "Shiba inu"
DogImg <- GoogleImage2array(query)

#bind arrays
Dat <- bind.array(CatImg, DogImg)
str(Dat)
```

`display.array` *display.array: display 4d array as a tiled image.*

Description

This function is to create a 2D tiled image from the R array/tensor obtained from Google image search.

Usage

```
display.array(x, Save = FALSE, file_path = NULL)
```

Arguments

`x`	a list obtained by the GoogleImage2array function.
`Save`	a logical. Whether to save images locally or not. if TRUE, save locally.
`file_path`	a character. a directory to save the image file.

Value

image

Author(s)

Satoshi Kume

Examples

```
# Simple examples
query <- "persian cat"
CatImg <- GoogleImage2array(query)

#show images
display.array(CatImg)

query <- "Shiba inu"
DogImg <- GoogleImage2array(query)

#show images
display.array(DogImg)
```

`display.spiral` *display.spiral: display 4d array as a spiral image.*

Description

This function is to create a spiral imagethe from R array/tensor obtained from Google image search.

Usage

```
display.spiral(x, Save = FALSE, SaveFormat = "png", file_path = NULL)
```

Arguments

`x`	a list obtained by the GoogleImage2array function.
`Save`	a logical. Whether to save images locally or not. if TRUE, save locally.
`SaveFormat`	a character of format; png or pdf.
`file_path`	a character. a directory to save the image file.

Value

image

Author(s)

Satoshi Kume

Examples

```
library(EBImage)

# Simple examples
query <- "persian cat"
CatImg <- GoogleImage2array(query)

#show images
display.spiral(CatImg)
```

GoogleImage2array *GoogleImage2array: create array from image thumbnails.*

Description

This function is to create the R array/tensor from 2D image obtained from Google image search. This function provides an array consisted of 20 images per run.

Usage

```
GoogleImage2array(
  Query,
  wh = 64,
  Col = TRUE,
  Save = FALSE,
  file_path = NULL,
  Display = FALSE,
  gl = "us"
)
```

Arguments

Query	a character vector to search images
wh	a value of pixels in height and width.
Col	a logical. Whether to handle color or gray images. if TRUE, use color mode.
Save	a logical. Whether to save images locally or not. if TRUE, save locally.
file_path	a character. a directory to save the image file.
Display	a logical; display images or not.
gl	a character to show a region information. ex. us, ja etc

Value

array

Author(s)

Satoshi Kume

Examples

```
library(EBImage)

# Simple examples
query <- "persian cat"
CatImg <- GoogleImage2array(query)
```

```
#show info
str(CatImg)

query <- "Shiba inu"
DogImg <- GoogleImage2array(query)

#show info
str(DogImg)

#Bind arrays
ImgDat <- unname(EBImage::abind(CatImg$array, DogImg$array, along=1))

#show info
str(ImgDat)
```

GoogleImage2array.world

GoogleImage2array.world

Description

This function is to gather images via 10 countries and create the R array/tensor from 2D images obtained.

Usage

```
GoogleImage2array.world(Query, wh = 64, Col = TRUE, verbose = FALSE)
```

Arguments

Query	a character vector to search images
wh	a value of pixels in height and width.
Col	a logical. Whether to handle color or gray images. if TRUE, use color mode.
verbose	Verbosity mode (FALSE: silent, TRUE: progress).

Value

array

Author(s)

Satoshi Kume

Examples

```
## Not run:
library(EBImage)

# Simple examples
query <- "persian cat"
CatImg <- GoogleImage2array.world(query)

#show info
str(CatImg)


## End(Not run)
```

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