Package 'mathpix'

June 19, 2020

Title Support for the 'Mathpix' API (Image to 'LaTeX')

Version 0.4.0

Maintainer Jonathan Carroll <rpkg@jcarroll.com.au>

Description Given an image of a formula (typeset or handwritten) this package provides calls to the 'Mathpix' service to produce the 'LaTeX' code which should generate that image, and pastes it into a (e.g. an 'rmarkdown') document. See <https://docs.mathpix.com/> for full details. 'Mathpix' is an external service and use of the API is subject to their terms and conditions.

Depends R (>= 3.3.0)

License GPL (>= 3)

Encoding UTF-8

LazyData true

URL https://github.com/jonocarroll/mathpix

BugReports https://github.com/jonocarroll/mathpix/issues

Suggests testthat, covr

RoxygenNote 7.1.0

Imports purrr, base64enc, httr, rstudioapi, texPreview, magick, utils

NeedsCompilation no

Author Jonathan Carroll [aut, cre] (<https://orcid.org/0000-0002-1404-5264>)

Repository CRAN

Date/Publication 2020-06-19 13:50:03 UTC

R topics documented:

credentials *Detect mathpix credentials*

Description

Checks environmental variables for `MATHPIX_APP_ID` and `MATHPIX_APP_KEY` values.

Usage

```
credentials()
```

Value

a list of detected credentials (or this package's credentials)

get_api_key *Get a mathpix API key*

Description

Get a mathpix API key

Usage

```
get_api_key()
```

Value

NULL (invisibly). Used for the side-effect of opening a browser.

mathpix *Convert an image of an equation to a 'LaTeX' expression*

Description

Given an image file location, `mathpix` performs the relevant transformations and send the data to the 'Mathpix' API, which returns a 'LaTeX' expression which should generate the typeset equation/expression in that image. When using 'RStudio', the resulting 'LaTeX' expression is automatically inserted into the current `rmarkdown` document.

Usage

```
mathpix(img, insert = TRUE, retry = FALSE)
```

Arguments

img	image to be converted to LaTeX
insert	Should the resulting LaTeX block be inserted into the document (default: TRUE)
retry	If Mathpix is not able to process the image, should we try again with a re-processed image?

Details

You must save your own API key in your environment (e.g. ~/.Renviron) with the identifiers MATHPIX_APP_ID and MATHPIX_APP_KEY. This can be tested with mathpix:::credentials().

Value

(invisibly) the rmarkdown LaTeX equation block

References

https://mathpix.com/

Examples

```
## Not run:
mathpix(system.file("extdata", "eq_no_01.png", package = "mathpix"), insert = FALSE)
## returns
## $$\n \int \frac { 4x } { \sqrt { x ^ { 2} + 1} } d x \n$$
## End(Not run)
```

---

render_latex *Convert a 'LaTeX' expression to an image (render)*

Description

This calls texPreview to render a 'LaTeX' expression into an image, either as a temporary file or saved to disk.

Usage

```
render_latex(latex, fileDir = NULL, ...)
```

Arguments

latex	'LaTeX' code to be evaluated. Surround in $ or $$.
fileDir	directory in which to save the image to (defaults to '/tmp/tempfile()').
...	other options to pass to texPreview.

Value

NULL (invisibly)

Examples

```
## Not run:
## requires pdflatex
latex_expression <- "$$\\int \\frac { 4 x } { \\sqrt { x ^ { 2 } + 1 } } d x$$"
render_latex(latex_expression)
## End(Not run)
```

Index