Package 'googlenlp'

July 13, 2018

Type Package

Title An Interface to Google's Cloud Natural Language API

Description Interact with Google's Cloud Natural Language API <https://cloud.google.com/natural-language/> (v1) via R. The API has four main features, all of which are available through this R package: syntax analysis and part-of-speech tagging, entity analysis, sentiment analysis, and language identification.

Version 0.2.0

License MIT + file LICENSE

URL https://github.com/BrianWeinstein/googlenlp

LazyData TRUE

Imports dplyr, httr, jsonlite, purrr, readr, rlang

RoxygenNote 6.0.1

Suggests testthat

NeedsCompilation no

Author Brian Weinstien [aut, cre]

Maintainer Brian Weinstien <bweinstein02@gmail.com>

Repository CRAN

Date/Publication 2018-07-13 16:40:03 UTC

R topics documented:

`analyze_entities` *analyze_entities*

Description

Send a request, and retrieve the `entities` and `language` responses. This function retrieves the results from the analyzeEntities method.

Usage

```
analyze_entities(text_body, flatten = TRUE)
```

Arguments

`text_body`	The text string to send to the API.
`flatten`	If `TRUE` (default), then the results of each method are flattened and converted to a data frame.

Value

A list containing two elements: `entities` and `language`.

If `flatten` is `TRUE`, then the `entities` element is converted to a data frame.

Examples

```
## Not run:
sample_entities <- analyze_entities(text_body = "Google, headquartered in Mountain View, unveiled
                                    the new Android phone at the Consumer Electronic Show.
                                        Sundar Pichai said in his keynote that users love
                                        their new Android phones.",
                                     flatten = TRUE)
sample_entities$entities
sample_entities$language

## End(Not run)
```

analyze_sentiment *analyze_sentiment*

Description

Send a request, and retrieve the documentSentiment and language responses. This function retrieves the results from the analyzeSentiment method.

Usage

```
analyze_sentiment(text_body, flatten = TRUE)
```

Arguments

text_body	The text string to send to the API.
flatten	If TRUE (default), then the results of each method are flattened and converted to a data frame.

Value

A list containing two elements: documentSentiment and language.

If flatten is TRUE, then the documentSentiment element is converted to a data frame.

Examples

```
## Not run:
sample_sentiment <- analyze_sentiment(text_body = "Google, headquartered in Mountain View, unveiled
                                    the new Android phone at the Consumer Electronic Show.
                                        Sundar Pichai said in his keynote that users love
                                        their new Android phones.",
                                       flatten = TRUE)
sample_sentiment$documentSentiment
sample_sentiment$language

## End(Not run)
```

analyze_syntax *analyze_syntax*

Description

Send a request, and retrieve the sentences, tokens, and language responses. This function retrieves the results from the analyzeSyntax method.

Usage

```
analyze_syntax(text_body, flatten = TRUE)
```

Arguments

text_body	The text string to send to the API.
flatten	If TRUE (default), then the results of each method are flattened and converted to a data frame.

Value

A list containing three elements: sentences, tokens, and language.

If flatten is TRUE, then the sentences and tokens elements are each converted to data frames.

Examples

```
## Not run:
sample_syntax <- analyze_syntax(text_body = "Google, headquartered in Mountain View, unveiled
                                    the new Android phone at the Consumer Electronic Show.
                                        Sundar Pichai said in his keynote that users love
                                        their new Android phones.",
                                flatten = TRUE)
sample_syntax$sentences
sample_syntax$tokens
sample_syntax$language

## End(Not run)
```

---

annotate_text *annotate_text*

Description

Send a request, and retrieve the sentences, tokens, entities, documentSentiment, and language responses. This function calls the annotateText method, which performs the analyzeSyntax, analyzeEntities, and analyzeSentiment methods all within one API call.

Usage

```
annotate_text(text_body, flatten = TRUE)
```

Arguments

text_body	The text string to send to the API.
flatten	If TRUE (default), then the results of each method are flattened and converted to a data frame.

Value

A list containing five elements: sentences, tokens, entities, documentSentiment, and language.

If flatten is TRUE, then the sentences, tokens, entities, and documentSentiment elements are each converted to data frames.

Examples

```
## Not run:
sample_annotate <- annotate_text(text_body = "Google, headquartered in Mountain View, unveiled
                                    the new Android phone at the Consumer Electronic Show.
                                        Sundar Pichai said in his keynote that users love
                                        their new Android phones.",
                                  flatten = TRUE)
sample_annotate$sentences
sample_annotate$tokens
sample_annotate$entities
sample_annotate$documentSentiment
sample_annotate$language

## End(Not run)
```

---

configure_googlenlp *Configure your computer or a server to connect to the Google Cloud Natural Language API via R functions*

Description

Creates variables in your .Renviron file for use by other googlenlp functions. This will edit your .Renviron file only if you call this function directly. If you prefer not to change your .Renviron file, use the set_api_key function instead.

Usage

```
configure_googlenlp()
```

Value

None

Examples

```
## Not run:
configure_googlenlp()

## End(Not run)
```

flatten_entities *Flatten entities*

Description

Convert the JSON/list `entities` response into a flattened data frame.

Usage

```
flatten_entities(entities_list)
```

Arguments

`entities_list`	The `entities` component of the API response.

Value

A flattened data frame.

Examples

```
## Not run:
sample_post <- gcnlp_post(text_body = "Google, headquartered in Mountain View, unveiled
                                      the new Android phone at the Consumer Electronic Show.
                                          Sundar Pichai said in his keynote that users love
                                          their new Android phones.",
                          extract_syntax = TRUE,
                          extract_entities = TRUE,
                          extract_document_sentiment = TRUE)

flatten_entities(entities_list = sample_post$content$entities)

## End(Not run)
```

flatten_sentences *Flatten sentences*

Description

Convert the JSON/list `sentences` response into a flattened data frame.

Usage

```
flatten_sentences(sentences_list)
```

Arguments

`sentences_list` The `sentences` component of the API response.

Value

A flattened data frame.

Examples

```
## Not run:
sample_post <- gcnlp_post(text_body = "Google, headquartered in Mountain View, unveiled
                                    the new Android phone at the Consumer Electronic Show.
                                        Sundar Pichai said in his keynote that users love
                                        their new Android phones.",
                          extract_syntax = TRUE,
                          extract_entities = TRUE,
                          extract_document_sentiment = TRUE)

flatten_sentences(sentences_list = sample_post$content$sentences)

## End(Not run)
```

`flatten_sentiment` *Flatten sentiment*

Description

Convert the JSON/list `sentiment` response into a flattened data frame.

Usage

```
flatten_sentiment(sentiment_list)
```

Arguments

`sentiment_list` The `sentiment` component of the API response.

Value

A flattened data frame.

Examples

```
## Not run:
sample_post <- gcnlp_post(text_body = "Google, headquartered in Mountain View, unveiled
                                    the new Android phone at the Consumer Electronic Show.
                                        Sundar Pichai said in his keynote that users love
                                        their new Android phones.",
                          extract_syntax = TRUE,
                          extract_entities = TRUE,
                          extract_document_sentiment = TRUE)

flatten_sentiment(sentiment_list = sample_post$content$sentiment)

## End(Not run)
```

`flatten_tokens` *Flatten tokens*

Description

Convert the JSON/list `tokens` response into a flattened data frame.

Usage

```
flatten_tokens(tokens_list)
```

Arguments

`tokens_list`	The `tokens` component of the API response.

Value

A flattened data frame.

Examples

```
## Not run:
sample_post <- gcnlp_post(text_body = "Google, headquartered in Mountain View, unveiled
                                    the new Android phone at the Consumer Electronic Show.
                                        Sundar Pichai said in his keynote that users love
                                        their new Android phones.",
                          extract_syntax = TRUE,
                          extract_entities = TRUE,
                          extract_document_sentiment = TRUE)

flatten_tokens(tokens_list = sample_post$content$tokens)

## End(Not run)
```

gcnlp_key *Retrieve API key*

Description

Retrieve API key

Usage

```
gcnlp_key()
```

Value

Your API key

Examples

```
## Not run:
gcnlp_key()

## End(Not run)
```

gcnlp_post *Send a POST request to the Google Cloud Natural Language API*

Description

Send a POST request to the Google Cloud Natural Language API and retrieve the results.

Usage

```
gcnlp_post(text_body, extract_syntax = TRUE, extract_entities = TRUE,
  extract_document_sentiment = TRUE)
```

Arguments

`text_body`	The text string to send to the API.
`extract_syntax`	Behavior for the analyzeSyntax method. Defaults to `TRUE`. See the API documentation for more information.
`extract_entities`	Behavior for the analyzeEntities method. Defaults to `TRUE`. See the API documentation for more information.
`extract_document_sentiment`	Behavior for the analyzeSentiment method. Defaults to `TRUE`. See the API documentation for more information.

Value

A list containing two elements: [1] `content` includes the parsed response, and contains the `sentences`, `tokens`, `entities`, `documentSentiment`, `language` results specified in the request. [2] `raw_response` contains the raw response from the API.

Examples

```
## Not run:
gcnlp_post(text_body = "Google, headquartered in Mountain View, unveiled
                                    the new Android phone at the Consumer Electronic Show.
                                        Sundar Pichai said in his keynote that users love
                                        their new Android phones.",
           extract_syntax = TRUE,
           extract_entities = TRUE,
           extract_document_sentiment = TRUE)

## End(Not run)
```

`get_config_file` *Fetch session-specific gcnlp default values*

Description

`get_config_file()` gets the value of `config_file`

Usage

```
get_config_file()
```

Value

The path to the user's `config_file`

Examples

```
## Not run:
get_config_file()

## End(Not run)
```

set_api_key *Manually set access credentials*

Description

Manually define an API key. Only use this function if you haven't run `configure_googlenlp()`

Usage

```
set_api_key(api_key)
```

Arguments

api_key	Your API key, from https://console.cloud.google.com/apis/credentials

Value

None

Examples

```
## Not run:
set_api_key("YOUR_API_KEY")

## End(Not run)
```

Index