

Package ‘Rnumerai’

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Title Interface to the Numerai Machine Learning Tournament API

Version 0.3

Description Routines to interact with the Numerai Machine Learning Tournament API <<https://numer.ai>>. The functionality includes the ability to automatically download the current tournament data, submit predictions, and to get information for your user. General 'GraphQL' queries can also be executed.

Depends R (>= 3.1)

License GPL-3

Encoding UTF-8

LazyData true

URL <https://github.com/Omni-Analytics-Group/Rnumerai>

BugReports <https://github.com/Omni-Analytics-Group/Rnumerai/issues>

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Imports httr, lubridate

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Author Omni Analytics Group [aut],
Eric Hare [cre]

Maintainer Eric Hare <eric@omnianalytics.io>

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current_round	<i>Get current round and it's closing time</i>
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Description

Get current round and it's closing time

Usage

```
current_round()
```

Value

Returns the current round number and it's closing times

Examples

```
## Not run:
current_round()

## End(Not run)
```

download_data	<i>Function to download the Numerai Tournament data</i>
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Description

Function to download the Numerai Tournament data

Usage

```
download_data(location = tempdir())
```

Arguments

location	The directory path in which to store the data
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Value

A list containing the training and tournament data objects

Examples

```
## Not run:  
## Directory where data files and prediction files to be saved  
## Put custom directory path or use the current working directory  
data_dir <- tempdir()  
  
## Download data set for current competition  
data <- download_data(data_dir)  
data_train <- data$data_train  
data_tournament <- data$data_tournament  
  
## End(Not run)
```

get_api_key	<i>Gets the Numerai API key</i>
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Description

Gets the Numerai API key

Usage

```
get_api_key()
```

Value

Your Numerai API key, if set

Examples

```
## Not run:  
get_api_key()  
  
## End(Not run)
```

get_password	<i>Gets the Numerai Password</i>
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Description

Gets the Numerai Password

Usage

```
get_password()
```

Value

Your Numerai Password, if set

Examples

```
## Not run:  
get_password()  
  
## End(Not run)
```

get_public_id	<i>Gets the Numerai Public ID</i>
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Description

Gets the Numerai Public ID

Usage

```
get_public_id()
```

Value

Your Numerai Public ID, if set

Examples

```
## Not run:  
get_public_id()  
  
## End(Not run)
```

`round_stats`*Get Information and leader board for a Round Number*

Description

Get Information and leader board for a Round Number

Usage

```
round_stats(round_number)
```

Arguments

`round_number` Round Number for which information to fetch

Value

List containing general round information and leaderboard

Examples

```
## Not run:  
round_info <- round_stats(round_number=79)  
round_info$round_info  
round_info$round_leaderboard  
  
## End(Not run)
```

`run_query`*Function to run a raw GraphQL query on the API interface*

Description

Function to run a raw GraphQL query on the API interface

Usage

```
run_query(query, id = get_public_id(), key = get_api_key())
```

Arguments

`query` The graphql query to run on the API as a string in single quotes
`id` The public id of the Numerai application
`key` The Numerai API key

Value

The parsed json content returned from the request

Examples

```
## Not run:
## Run Custom GraphQL code from R
custom_query <- "query queryname {
  rounds (number:82) {
    closeTime
  }
}"
run_query(query=custom_query)$data

## End(Not run)
```

set_api_key	<i>Sets the Numerai API key</i>
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Description

Sets the Numerai API key

Usage

```
set_api_key(key)
```

Arguments

key	The Numerai API key
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Value

A boolean TRUE if the key was successfully set

Examples

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

## End(Not run)
```

set_password	<i>Sets the Numerai Password</i>
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Description

Sets the Numerai Password

Usage

```
set_password(pass)
```

Arguments

pass	The Numerai Password
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Value

A boolean TRUE if the password was successfully set

Examples

```
## Not run:  
set_password("abcdefghijklmnop")  
  
## End(Not run)
```

set_public_id	<i>Sets the Numerai Public ID</i>
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Description

Sets the Numerai Public ID

Usage

```
set_public_id(id)
```

Arguments

id	The Numerai Public ID
----	-----------------------

Value

A boolean TRUE if the ID was successfully set

Examples

```
## Not run:  
set_public_id("abcdefghijklmnop")  
  
## End(Not run)
```

stake_nmr	<i>Stake NMR on the current round</i>
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Description

Stake NMR on the current round

Usage

```
stake_nmr(value, confidence, mfa_code = "", password = "")
```

Arguments

value	The amount of NMR to stake
confidence	The confidence value to use
mfa_code	The mfa code
password	Your password

Value

The transaction hash for stake made

Examples

```
## Not run:  
stake_tx_hash <- stake_nmr(value = 1, confidence = ".5")  
  
## End(Not run)
```

`status_submission_by_id`*Get information about a submission from a submission id*

Description

Get information about a submission from a submission id

Usage

```
status_submission_by_id(sub_id)
```

Arguments

`sub_id` The id of the submission

Value

A list containing information about the given submission id

Examples

```
## Not run:  
status_submission_by_id(submission_id)  
  
## End(Not run)
```

`submit_predictions`*Function to submit the Numerai Tournament predictions*

Description

Function to submit the Numerai Tournament predictions

Usage

```
submit_predictions(submission, location = tempdir())
```

Arguments

`submission` The data frame of predictions to submit. This should have two columns named "id" & "probability"
`location` The location in which to store the predictions

Value

The submission id for the submission made

Examples

```
## Not run:  
submission_id <- submit_predictions(submission_data)  
  
## End(Not run)
```

user_info

Get information about your username

Description

Get information about your username

Usage

```
user_info()
```

Value

A list containing information about user

Examples

```
## Not run:  
uinfo <- user_info()  
names(uinfo)  
uinfo$Latest_Submission  
  
## End(Not run)
```

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