Package: SigOptR (via r-universe)

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Title R API Wrapper for SigOpt

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Description Interfaces with the 'SigOpt' API. More info at <https://sigopt.com>.

Imports httr, jsonlite

Depends R (>= 3.2.0)

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Contents

create_experiment *Create an experiment*

Description

Create an experiment

Usage

```
create_experiment(body)
```

Arguments

body	POST body of create request

Value

experiment created by SigOpt

Examples

```
env <- Sys.getenv("NOT_CRAN")
if (!identical(env, "true")) {
0
} else {
create_experiment(list(
  name="R test experiment",
  parameters=list(
    list(name="x1", type="double", bounds=list(min=0, max=100)),
    list(name="x2", type="double", bounds=list(min=0, max=100))
  )
))}
```

create_observation *Create an observation for an experiment*

Description

Create an observation for an experiment

Usage

```
create_observation(experiment_id, body)
```

Arguments

experiment_id	the id of an experiment to create an observation for
body	POST body of create request

Value

observation created by SigOpt

Examples

```
env <- Sys.getenv("NOT_CRAN")
if (!identical(env, "true")) {
0
} else {
experiment <- create_experiment(list(
  name="R test experiment",
  parameters=list(
    list(name="x1", type="double", bounds=list(min=0, max=100)),
    list(name="x2", type="double", bounds=list(min=0, max=100))
  )
))
suggestion <- create_suggestion(experiment$id)
create_observation(experiment$id, list(suggestion=suggestion$id, value=99.08))
create_observation(experiment$id, list(suggestion=suggestion$id, value=99.58, value_stddev=0.1))}
```

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create_suggestion *Create a suggestion for an experiment*

Description

Create a suggestion for an experiment

Usage

```
create_suggestion(experiment_id, body = NULL)
```

Arguments

experiment_id	the id of an experiment to create an suggestion for
body	POST body of create request

Value

suggestion created by SigOpt

Examples

```
env <- Sys.getenv("NOT_CRAN")
if (!identical(env, "true")) {
0
} else {
experiment <- create_experiment(list(
  name="R test experiment",
  parameters=list(
```

```
    list(name="x1", type="double", bounds=list(min=0, max=100)),
    list(name="x2", type="double", bounds=list(min=0, max=100))
  )
))
create_suggestion(experiment$id)}
```

`fetch_experiment` *Fetch an experiment*

Description

Fetch an experiment

Usage

```
fetch_experiment(experiment_id, body = NULL)
```

Arguments

`experiment_id`	the id of an experiment to fetch
`body`	Url params of GET request

Value

SigOpt experiment with id experiment_id

Examples

```
env <- Sys.getenv("NOT_CRAN")
if (!identical(env, "true")) {
0
} else {
experiment <- create_experiment(list(
  name="R test experiment",
  parameters=list(
    list(name="x1", type="double", bounds=list(min=0, max=100)),
    list(name="x2", type="double", bounds=list(min=0, max=100))
  )
))
fetch_experiment(experiment$id)}
```

franke — *Franke function - http://www.sfu.ca/~ssurjano/franke2d.html*

Description

Franke function - http://www.sfu.ca/~ssurjano/franke2d.html

Usage

```
franke(x, y)
```

Arguments

x	First dimension
y	Second dimension

Value

The franke function evaluated at x,y

Examples

```
franke(0,1)
```

sigopt_api_token — *Get the SigOpt API token from the SIGOPT_API_TOKEN environment variable or user input*

Description

Get the SigOpt API token from the SIGOPT_API_TOKEN environment variable or user input

Usage

```
sigopt_api_token(force = FALSE)
```

Arguments

force	force entry of SigOpt API token, even if present

Value

SigOpt API token

`sigopt_api_url` *Get the SigOpt API url from the SIGOPT_API_URL environment variable or use default Most users will be ok with the default value*

Description

Get the SigOpt API url from the SIGOPT_API_URL environment variable or use default Most users will be ok with the default value

Usage

```
sigopt_api_url()
```

Value

Base url for SigOpt API requests

See Also

`sigopt_GET` and `sigopt_POST`, which perform the HTTP requests

`sigopt_api_user_agent` *User agent for current version of SigOpt R API Client*

Description

User agent for current version of SigOpt R API Client

Usage

```
sigopt_api_user_agent()
```

Value

User agent

See Also

`sigopt_GET` and `sigopt_POST`, which perform the HTTP requests

sigopt_auth *Create authentication for SigOpt API, using HTTP Basic Auth*

Description

Create authentication for SigOpt API, using HTTP Basic Auth

Usage

```
sigopt_auth(api_token = sigopt_api_token())
```

Arguments

api_token	SigOpt API token

Value

http basic authentiation with api_token as username and no password

sigopt_check *Check content returned by the SigOpt API*

Description

Check content returned by the SigOpt API

Usage

```
sigopt_check(req)
```

Arguments

req	result of request to the SigOpt API

Value

invisible(), stops if there is an error status code

See Also

sigopt_GET and sigopt_POST, which call this function interally

sigopt_GET — *GET request to SigOpt API path, with json encoded body*

Description

GET request to SigOpt API path, with json encoded body

Usage

```
sigopt_GET(path, query = NULL, api_token = sigopt_api_token())
```

Arguments

path	path of SigOpt API url to POST to
query	list of query parameters to be url-encoded
api_token	SigOpt api token

Value

result of request to SigOpt API, needs to be JSON decoded

See Also

sigopt_parse, which parses the result of this function

sigopt_parse — *Parse content returned by the SigOpt API*

Description

Parse content returned by the SigOpt API

Usage

```
sigopt_parse(req)
```

Arguments

req	result of request to the SigOpt API

Value

json decoding of request object

See Also

sigopt_GET and sigopt_POST, which call this function interally

`sigopt_POST` *POST request to SigOpt API path, with json encoded body*

Description

POST request to SigOpt API path, with json encoded body

Usage

```
sigopt_POST(path, body, api_token = sigopt_api_token())
```

Arguments

`path`	path of SigOpt API url to POST to
`body`	POST body, will be json-encoded
`api_token`	SigOpt api token

Value

result of request to SigOpt API, needs to be JSON decoded

See Also

`sigopt_parse`, which parses the result of this function

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