

Package: promote (via r-universe)

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Type Package

Title Client for the 'Alteryx Promote' API

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Description Deploy, maintain, and invoke predictive models using the 'Alteryx Promote' REST API. 'Alteryx Promote' is available at the URL: <<https://www.alteryx.com/products/alteryx-promote>>.

Depends R (>= 3.2.0)

URL <https://github.com/alteryx/promote-r-client>

Imports httr, jsonlite, stringr,

License FreeBSD

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Repository <https://alteryx.r-universe.dev>

RemoteUrl <https://github.com/alteryx/promote-r-client>

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| | |
|----------------|----------------------------------------------------------------------------------------------------------------------|
| add.dependency | <i>Private function that adds a package to the list of dependencies that will be installed on the Promote server</i> |
|----------------|----------------------------------------------------------------------------------------------------------------------|

Description

Private function that adds a package to the list of dependencies that will be installed on the Promote server

Usage

```
add.dependency(name, importName, src, version, install, auth_token, ref,
               subdir)
```

Arguments

| | |
|------------|-------------------------------------------------------------------------------------------------------------------------|
| name | name of the package to be installed |
| importName | name under which the package is imported (for a github package, this may be different from the name used to install it) |
| src | source that the package is installed from (CRAN or github) |
| version | version of the package |
| install | whether or not the package should be installed in the model image |
| auth_token | a personal access token for github or gitlab repositories |
| ref | The git branch, tag, or SHA of the package to be installed |
| subdir | The path to the repo subdirectory holding the package to be installed |

| | |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| add.metadata | <i>Private function that adds metadata about the model that will be installed on the Promote server the metadata is arranged as key-value pairs</i> |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|

Description

Private function that adds metadata about the model that will be installed on the Promote server the metadata is arranged as key-value pairs

Usage

```
add.metadata(key, value)
```

Arguments

| | |
|-------|---------------------------------|
| key | key name for the metadata entry |
| value | value for the metadata entry |

| | |
|-------------|----------------------------------------------------------------|
| capture.src | <i>Private function for capturing the source code of model</i> |
|-------------|----------------------------------------------------------------|

Description

Private function for capturing the source code of model

Usage

```
capture.src(funcs, capture.model.require = TRUE)
```

Arguments

| | |
|-----------------------|--------------------------------------------------------------------|
| funcs | functions to capture, defaults to required promote model functions |
| capture.model.require | flag to capture the model.require function |

| | |
|------------------|--------------------------------------------------------------------|
| check.image.size | <i>Private function for checking the size of the user's image.</i> |
|------------------|--------------------------------------------------------------------|

Description

Private function for checking the size of the user's image.

Usage

```
check.image.size()
```

| | |
|----------|----------------------------------------------------------------------------------|
| is.https | <i>Private predicate function that checks if the protocol of a url is https.</i> |
|----------|----------------------------------------------------------------------------------|

Description

Private predicate function that checks if the protocol of a url is https.

Usage

```
is.https(x)
```

Arguments

| | |
|---|-----------------|
| x | is a url string |
|---|-----------------|

| | |
|----------------|--------------------------------------------|
| promote.deploy | <i>Deploy a model to promote's servers</i> |
|----------------|--------------------------------------------|

Description

This function takes model.predict and creates a model on promote's servers which can be called from any programming language via promote's REST API (see [promote.predict](#)).

Usage

```
promote.deploy(model_name, confirm = TRUE, custom_image = NULL)
```

Arguments

| | |
|--------------|-------------------------------------------------------|
| model_name | name of your model |
| confirm | boolean indicating whether to prompt before deploying |
| custom_image | name of the image you'd like your model to use |

Examples

```
promote.config <- c(
  username = "your username",
  apikey = "your apikey",
  env = "http://sandbox.promotehq.com/"
)
iris$Sepal.Width_sq <- iris$Sepal.Width^2
fit <- glm(I(Species)=="virginica" ~ ., data=iris)

model.predict <- function(df) {
  data.frame("prediction"=predict(fit, df, type="response"))
}
```

```
## Not run:
promote.library("randomForest")
promote.deploy("irisModel")

## End(Not run)
```

| | |
|-------------|------------------------------------------------------|
| promote.get | <i>Private function for performing a GET request</i> |
|-------------|------------------------------------------------------|

Description

Private function for performing a GET request

Usage

```
promote.get(endpoint, query = c())
```

Arguments

| | |
|----------|----------------------------|
| endpoint | /path for REST request |
| query | url parameters for request |

| | |
|-----------------|-----------------------------------------------------------------------------------------|
| promote.library | <i>Import one or more libraries and add them to the promote model's dependency list</i> |
|-----------------|-----------------------------------------------------------------------------------------|

Description

Import one or more libraries and add them to the promote model's dependency list

Usage

```
promote.library(name, src = "version", version = NULL, user = NULL,
  install = TRUE, auth_token = NULL, url = NULL, ref = "master",
  subdir = NULL)
```

Arguments

| | |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name | name of the package to be added |
| src | source from which the package will be installed on Promote (github or CRAN) |
| version | version of the package to be added |
| user | Github username associated with the package |
| install | Whether the package should also be installed into the model on the Promote server; this is typically set to False when the package has already been added to the Promote base image. |

| | |
|------------|-----------------------------------------------------------------------------|
| auth_token | Personal access token string associated with a private package's repository |
| url | A valid URL pointing to a remote hosted git repository |
| ref | The git branch, tag, or SHA of the package to be installed |
| subdir | The path to the repo subdirectory holding the package to be installed |

Examples

```
## Not run:
promote.library("MASS")
promote.library(c("wesanderson", "stringr"))
promote.library("hilaryparker/cats")
promote.library("cats", src="github", user="hilaryparker")
promote.library("my_public_package", install=FALSE)
promote.library("my_public_package", src="git", url="https://gitlab.com/username/rpkg.git")
promote.library("my_proprietary_package", src="github", auth_token=<yourToken>)
promote.library("testPkg", src="github", user="emessess", auth_token=<yourToken>)
promote.library("priv_pkg",
  src="git",
  url="https://x-access-token:<PersonalAccessToken>ATgithub.com/username/rpkg.git")
promote.library("priv_pkg",
  src="git",
  url="https://x-access-token:<PersonalAccessToken>ATgitlab.com/username/rpkg.git",
  ref="stage")
promote.library("my_package", src="github", auth_token=<yourToken> subdir="/pathToSubdir/")

## End(Not run)
```

promote.ls

Private function for determining model dependencies

Description

List all object names which are dependencies of and 'model.predict'.

Usage

```
promote.ls()
```

promote.metadata *Add metadata to the deployment of your promote model*

Description

Add metadata to the deployment of your promote model

Usage

```
promote.metadata(name, value)
```

Arguments

| | |
|-------|---------------------------------|
| name | key name for the metadata entry |
| value | value for the metadata entry |

Examples

```
## Not run:
promote.metadata("key", "value")
promote.metadata("R_squared", summary(fit)$r.squared)
promote.metadata("R_squared_adj", summary(fit)$adj.r.squared)
promote.metadata("deploy_node", Sys.info()[["nodename"]])

## End(Not run)
```

promote.post *Private function for performing a POST request*

Description

Private function for performing a POST request

Usage

```
promote.post(endpoint, query = c(), data, silent = TRUE,
             bulk = FALSE)
```

Arguments

| | |
|----------|----------------------------------------------------------------|
| endpoint | /path for REST request |
| query | url parameters for request |
| data | payload to be converted to raw JSON |
| silent | should output of url to console be silenced? Default is FALSE. |
| bulk | is this a bulk style request? Default is FALSE. |

| | |
|-----------------|-----------------------------------------|
| promote.predict | <i>Make a prediction using promote.</i> |
|-----------------|-----------------------------------------|

Description

This function calls promote's REST API and returns a response formatted as a data frame.

Usage

```
promote.predict(model_name, data, model_owner, raw_input = FALSE,
               silent = TRUE)
```

Arguments

| | |
|-------------|-----------------------------------------------------------------------------------|
| model_name | the name of the model you want to call |
| data | input data for the model |
| model_owner | the owner of the model [optional] |
| raw_input | when true, incoming data will NOT be coerced into data.frame |
| silent | should output of url to console (via promote.post) be silenced? Default is FALSE. |

Examples

```
promote.config <- c(
  username = "your username",
  apikey = "your apikey",
  env = "http://sandbox.promotehq.com/"
)
## Not run:
promote.predict("irisModel", iris)

## End(Not run)
```

| | |
|---------------------|---------------------------------------------------------------------------------------------------------------------|
| promote.predict_raw | <i>Calls promote's REST API and returns a JSON document containing both the prediction and associated metadata.</i> |
|---------------------|---------------------------------------------------------------------------------------------------------------------|

Description

Calls promote's REST API and returns a JSON document containing both the prediction and associated metadata.

Usage

```
promote.predict_raw(model_name, data, model_owner, raw_input = FALSE,
                   silent = TRUE)
```


Arguments

| | |
|--------------------------|-------------------------------------------------------------------------------------------------|
| <code>model_name</code> | the name of the model you want to call |
| <code>data</code> | input data for the model |
| <code>model_owner</code> | the owner of the model [optional] |
| <code>raw_input</code> | when true, incoming data will NOT be coerced into data.frame |
| <code>silent</code> | should output of url to console (via <code>promote.post</code>) be silenced? Default is FALSE. |

Examples

```
promote.config <- c(
  username = "your username",
  apikey = "your apikey",
  env="http://ip_of_alteryx_promote.com"
)
## Not run:
promote.predict_raw("irisModel", iris)

## End(Not run)
```

`promote.spider.block` *Private function for recursively looking for variables*

Description

Private function for recursively looking for variables

Usage

```
promote.spider.block(block, defined.vars = c())
```

Arguments

| | |
|---------------------------|-------------------------------------------------------------------------------------------------|
| <code>block</code> | code block to spider |
| <code>defined.vars</code> | variables which have already been defined within the scope of the block. e.g. function argument |

promote.spider.func *Private function for spidering function source code*

Description

Private function for spidering function source code

Usage

```
promote.spider.func(func.name)
```

Arguments

func.name name of function you want to spider

promote.unload *Removes a library from the promote model's dependency list*

Description

Removes a library from the promote model's dependency list

Usage

```
promote.unload(name)
```

Arguments

name of the package to be removed

Examples

```
## Not run:  
promote.unload("wesanderson")  
  
## End(Not run)
```

| | |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <code>set.model.require</code> | <i>Private function that generates a <code>model.require</code> function based on the libraries that have been imported in this session.</i> |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|

Description

Private function that generates a `model.require` function based on the libraries that have been imported in this session.

Usage

```
set.model.require()
```

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