# Package 'perplexR'

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<b>Description</b> A coding assistant using Perplexity's Large Language Models <a href="https://www.perplexity.ai/">https://www.perplexity.ai/</a> API. A set of functions and 'RStudio' add-ins that aim to help R developers.		
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perplexR-package

perplexR: A Coding Assistant using Perplexity's Large Language Models

## **Description**

A coding assistant using Perplexity's Large Language Models <a href="https://www.perplexity.ai/">https://www.perplexity.ai/</a> API. A set of functions and 'RStudio' add-ins that aim to help R developers.

## Author(s)

Maintainer: Gabriel Kaiser <quantresearch.gk@gmail.com>

## See Also

Useful links:

- https://github.com/GabrielKaiserQFin/perplexR
- Report bugs at https://github.com/GabrielKaiserQFin/perplexR/issues

annotate Code

Large Language Model: Annotate code

## **Description**

Large Language Model: Annotate code

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#### Usage

## Arguments

code The code to be commented by Large Language Model. If not provided, it will

use what's copied on the clipboard.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk

about new topics. Incompatible with frequency\_penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

#### Value

A character value with the response generated by Large Language Model.

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#### **Examples**

```
## Not run:
annotateCode("z <- function(x) scale(x)^2")
## End(Not run)</pre>
```

API\_Request

Get Large Language Model Completions Endpoint

## **Description**

Get Large Language Model Completions Endpoint

## Usage

```
API_Request(
  prompt,
  PERPLEXITY_API_KEY = PERPLEXITY_API_KEY,
  modelSelection = modelSelection,
  systemRole = systemRole,
  maxTokens = maxTokens,
  temperature = temperature,
  top_p = top_p,
  top_k = top_k,
  presence_penalty = presence_penalty,
  frequency_penalty = frequency_penalty,
  proxy = proxy
)
```

## **Arguments**

prompt The prompt to generate completions for.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

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```
presence_penalty
```

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk about new topics. Incompatible with frequency\_penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

AskMe

Ask Large Language Model

## Description

Note: See also clearChatSession.

#### Usage

```
AskMe(
   question,
   PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
   modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
        "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
        "sonar-medium-chat", "sonar-medium-online"),
   systemRole = "You are a helpful assistant.",
   maxTokens = 265,
   temperature = 1,
   top_p = NULL,
   top_k = 100,
   presence_penalty = 0,
   frequency_penalty = NULL,
   proxy = NULL
)
```

## **Arguments**

question The question to ask Large Language Model.

PERPLEXITY API KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

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temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk about new topics. Incompatible with frequency penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

#### Value

A character value with the response generated by Large Language Model.

## **Examples**

```
## Not run:
AskMe("What do you think about Large language models?")
## End(Not run)
```

buildUnitTests

Large Language Model: Create Unit Tests

#### **Description**

Create {testthat} test cases for the code.

```
buildUnitTests(
  code = clipr::read_clip(allow_non_interactive = TRUE),
  PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
  modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
        "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
        "sonar-medium-chat", "sonar-medium-online"),
   systemRole = "You are a helpful assistant with extensive programming skills.",
  maxTokens = 265,
  temperature = 1,
```

buildUnitTests 7

```
top_p = NULL,
top_k = 100,
presence_penalty = 0,
frequency_penalty = NULL,
proxy = NULL
```

#### **Arguments**

code The code for which to create unit tests by Large Language Model. If not pro-

vided, it will use what's copied on the clipboard.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk

about new topics. Incompatible with frequency\_penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's

likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

## Value

A character value with the response generated by Large Language Model.

## **Examples**

```
## Not run:
buildUnitTests("squared_numbers <- function(numbers) {\n numbers ^ 2\n}")
## End(Not run)</pre>
```

8 clarifyCode

clarifyCode

Large Language Model: Clarify Code

#### **Description**

Large Language Model: Clarify Code

#### **Usage**

```
clarifyCode(
  code = clipr::read_clip(allow_non_interactive = TRUE),
  PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
 modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
    "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
    "sonar-medium-chat", "sonar-medium-online"),
 systemRole = "You are a helpful assistant with extensive programming skills.",
 maxTokens = 265,
  temperature = 1,
  top_p = NULL,
  top_k = 100,
  presence_penalty = 0,
  frequency_penalty = NULL,
  proxy = NULL
)
```

## **Arguments**

code

The code to be explained by Large Language Model. If not provided, it will use

what's copied on the clipboard.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

Role for model. Default is: "You are a helpful assistant with extensive knowlsystemRole

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk about new topics. Incompatible with frequency\_penalty.

debugCode 9

```
frequency_penalty
```

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy

Default value is NULL.

#### Value

A character value with the response generated by Large Language Model.

## **Examples**

```
## Not run:
clarifyCode("z <- function(x) scale(x)^2")
## End(Not run)</pre>
```

debugCode

Large Language Model: Find Issues in Code

## **Description**

Large Language Model: Find Issues in Code

```
debugCode(
  code = clipr::read_clip(allow_non_interactive = TRUE),
  PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
  modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
        "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
        "sonar-medium-chat", "sonar-medium-online"),
    systemRole = "You are a helpful assistant with extensive programming skills.",
    maxTokens = 265,
    temperature = 1,
    top_p = NULL,
    top_k = 100,
    presence_penalty = 0,
    frequency_penalty = NULL,
    proxy = NULL
)
```

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#### **Arguments**

code The code to be analyzed by Large Language Model. If not provided, it will use

what's copied on the clipboard.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk

about new topics. Incompatible with frequency\_penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

## Value

A character value with the response generated by Large Language Model.

#### **Examples**

```
## Not run:
debugCode("z <- function(x) scale(x)2")
## End(Not run)</pre>
```

documentCode

Large Language Model: Code Documentation (roxygen2 style)

## **Description**

Large Language Model: Code Documentation (roxygen2 style)

documentCode 11

## Usage

```
documentCode(
  code = clipr::read_clip(allow_non_interactive = TRUE),
  inLineDocumentation = "roxygen2",
 PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
 modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
    "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
    "sonar-medium-chat", "sonar-medium-online"),
 systemRole = "You are a helpful assistant with extensive programming skills.",
 maxTokens = 265,
  temperature = 1,
  top_p = NULL,
  top_k = 100,
  presence_penalty = 0,
  frequency_penalty = NULL,
 proxy = NULL
)
```

#### **Arguments**

code

The code to be documented by Large Language Model. If not provided, it will

use what's copied on the clipboard.

inLineDocumentation

Formatting style of In-Line Documentation.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk about new topics. Incompatible with frequency\_penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

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## Value

A character value with the response generated by Large Language Model.

## **Examples**

```
## Not run:
documentCode("z <- function(x) scale(x)^2")
## End(Not run)</pre>
```

execAddin

Run a Large Language Model as RStudio add-in

## Description

Run a Large Language Model as RStudio add-in

## Usage

```
execAddin(FUN)
```

## Arguments

FUN

The function to be executed.

execAddin\_AskMe

Ask Large Language Model

## Description

Opens an interactive chat session with Large Language Model

```
execAddin_AskMe()
```

finishCode 13

finishCode

Large Language Model: Finish code

#### **Description**

Large Language Model: Finish code

#### Usage

```
finishCode(
  code = clipr::read_clip(allow_non_interactive = TRUE),
  PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
  modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
        "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
        "sonar-medium-chat", "sonar-medium-online"),
    systemRole = "You are a helpful assistant with extensive programming skills.",
    maxTokens = 265,
    temperature = 1,
    top_p = NULL,
    top_k = 100,
    presence_penalty = 0,
    frequency_penalty = NULL,
    proxy = NULL
)
```

## **Arguments**

code

The code to be completed by Large Language Model. If not provided, it will use

what's copied on the clipboard.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk about new topics. Incompatible with frequency\_penalty.

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```
frequency_penalty
```

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy

Default value is NULL.

#### Value

A character value with the response generated by Large Language Model.

## **Examples**

```
## Not run:
finishCode("# A function to square each element of a vector\nsquare_each <- function(")
## End(Not run)</pre>
```

namingGenie

Large Language Model: Create a Function or Variable Name

## Description

Large Language Model: Create a Function or Variable Name

```
namingGenie(
  code = clipr::read_clip(allow_non_interactive = TRUE),
  namingConvention = "camelCase",
 PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
 modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
    "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
    "sonar-medium-chat", "sonar-medium-online"),
 systemRole = "You are a helpful assistant with extensive programming skills.",
 maxTokens = 265,
  temperature = 1,
  top_p = NULL,
  top_k = 100,
  presence_penalty = 0,
 frequency_penalty = NULL,
  proxy = NULL
)
```

namingGenie 15

#### **Arguments**

code The code for which to give a variable name to its result. If not provided, it will

use what's copied on the clipboard.

namingConvention

Naming convention. Default is camelCase.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk

about new topics. Incompatible with frequency\_penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's

likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

#### Value

A character value with the response generated by Large Language Model.

#### **Examples**

```
## Not run:
namingGenie("sapply(1:10, function(i) i ** 2)")
## End(Not run)
```

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optimizeCode

Large Language Model: Optimize Code

#### **Description**

Large Language Model: Optimize Code

## Usage

## **Arguments**

code

The code to be optimized by Large Language Model. If not provided, it will use

what's copied on the clipboard.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk about new topics. Incompatible with frequency\_penalty.

responseParser 17

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy

Default value is NULL.

#### Value

A character value with the response generated by Large Language Model.

## **Examples**

```
## Not run:
optimizeCode("z <- function(x) scale(x)^2")
## End(Not run)</pre>
```

responseParser

Parse Perplexity API Response

## Description

Takes the raw response from the Perplexity API and extracts the text content from it.

## Usage

```
responseParser(raw)
```

## Arguments

raw

The raw object returned by the Perplexity API.

## Value

Returns a character vector containing the text content of the response.

18 rewriteText

responseReturn

responseReturn

## **Description**

responseReturn

## Usage

```
responseReturn(raw)
```

#### **Arguments**

raw

the chatresponse to return

#### Value

A character value with the response generated by Large Language Model.

rewriteText

Large Language Model: Rewrite Text

## Description

Large Language Model: Rewrite Text

```
rewriteText(
  text = clipr::read_clip(allow_non_interactive = TRUE),
  PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
  modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
        "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
        "sonar-medium-chat", "sonar-medium-online"),
    systemRole = "You are a helpful assistant.",
  maxTokens = 265,
  temperature = 1,
  top_p = NULL,
  top_k = 100,
  presence_penalty = 0,
  frequency_penalty = NULL,
  proxy = NULL
)
```

translateCode 19

## Arguments

text The text to be rewritten by Large Language Model. If not provided, it will use

what's copied on the clipboard.

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk

about new topics. Incompatible with frequency\_penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

#### Value

A character value with the response generated by Large Language Model.

## **Examples**

```
## Not run:
rewriteText("Dear Recipient, I hope this message finds you well.")
## End(Not run)
```

translateCode

Translate Code from One Language to Another

#### **Description**

This function takes a snippet of code and translates it from one programming language to another using Perplexity API. The default behavior is to read the code from the clipboard and translate from R to Python.

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## Usage

```
translateCode(
  code = clipr::read_clip(allow_non_interactive = TRUE),
  from = "R",
  to = "Python"
  PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
 modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
    "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
    "sonar-medium-chat", "sonar-medium-online"),
 systemRole = "You are a helpful assistant with extensive programming skills.",
 maxTokens = 265,
  temperature = 1,
  top_p = NULL,
  top_k = 100,
  presence_penalty = 0,
  frequency_penalty = NULL,
  proxy = NULL
)
```

## **Arguments**

code A string containing the code to be translated. If not provided, the function will

attempt to read from the clipboard.

from The language of the input code. Default is "R".

to The target language for translation. Default is "Python".

PERPLEXITY\_API\_KEY

PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant with extensive knowl-

edge of R programming."

maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

top\_k The number of tokens to keep for highest top-k filtering, specified as an integer

between 0 and 2048 inclusive. If set to 0, top-k filtering is disabled.

presence\_penalty

A value between -2.0 and 2.0. Positive values penalize new tokens based on whether they appear in the text so far, increasing the model's likelihood to talk

about new topics. Incompatible with frequency\_penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

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#### Value

A string containing the translated code.

#### **Examples**

```
## Not run:
translateCode("your R code here", from = "R", to = "Python")
## End(Not run)
```

translateText

Large Language Model: Translate Text

## **Description**

Large Language Model: Translate Text

## Usage

```
translateText(
  text = clipr::read_clip(allow_non_interactive = TRUE),
  toLanguage = "German",
  PERPLEXITY_API_KEY = Sys.getenv("PERPLEXITY_API_KEY"),
 modelSelection = c("mistral-7b-instruct", "mixtral-8x7b-instruct",
    "codellama-70b-instruct", "sonar-small-chat", "sonar-small-online",
    "sonar-medium-chat", "sonar-medium-online"),
  systemRole = "You are a helpful assistant.",
 maxTokens = 265,
  temperature = 1,
  top_p = NULL,
  top_k = 100,
  presence_penalty = 0,
  frequency_penalty = NULL,
  proxy = NULL
)
```

#### **Arguments**

The text to be translated by Large Language Model. If not provided, it will use what's copied on the clipboard.

toLanguage The language to be translated into.

PERPLEXITY\_API\_KEY
PERPLEXITY API key.

modelSelection model choice. Default is mistral-7b-instruct.

systemRole Role for model. Default is: "You are a helpful assistant."

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maxTokens The maximum integer of completion tokens returned by API.

temperature The amount of randomness in the response, valued between 0 inclusive and 2

exclusive. Higher values are more random, and lower values are more determin-

istic. Set either temperature or top\_p.

top\_p Nucleus sampling threshold, valued between 0 and 1 inclusive.

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about new topics. Incompatible with frequency\_penalty.

frequency\_penalty

A multiplicative penalty greater than 0. Values greater than 1.0 penalize new tokens based on their existing frequency in the text so far, decreasing the model's likelihood to repeat the same line verbatim. A value of 1.0 means no penalty.

proxy Default value is NULL.

#### Value

A character value with the response generated by Large Language Model.

#### **Examples**

```
## Not run:
translateText("Dear Recipient, I hope this message finds you well.")
## End(Not run)
```

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