

Package ‘rtiktoken’

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Title A Byte-Pair-Encoding (BPE) Tokenizer for OpenAI's Large Language Models

Version 0.0.7

Description A thin wrapper around the tiktoken-rs crate, allowing to encode text into Byte-Pair-Encoding (BPE) tokens and decode tokens back to text. This is useful to understand how Large Language Models (LLMs) perceive text.

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URL <https://davzim.github.io/rtiktoken/>,
<https://github.com/DavZim/rtiktoken/>

BugReports <https://github.com/DavZim/rtiktoken/issues>

Suggests testthat (>= 3.0.0)

SystemRequirements Cargo (Rust's package manager), rustc >= 1.65.0

Encoding UTF-8

RoxygenNote 7.3.2

Config/rextendr/version 0.3.1.9001

Config/testthat/edition 3

Config/rtiktoken/MSRV 1.65.0

Depends R (>= 4.2)

NeedsCompilation yes

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Repository CRAN

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decode_tokens	<i>Decodes tokens back to text</i>
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Description

Decodes tokens back to text

Usage

```
decode_tokens(tokens, model)
```

Arguments

tokens	a vector of tokens to decode, or a list of tokens
model	a model to use for tokenization, either a model name, e.g., gpt-4o or a tokenizer, e.g., o200k_base. See also available tokenizers .

Value

a character string of the decoded tokens or a vector or strings

See Also

[model_to_tokenizer\(\)](#), [get_tokens\(\)](#)

Examples

```
tokens <- get_tokens("Hello World", "gpt-4o")
tokens
decode_tokens(tokens, "gpt-4o")

tokens <- get_tokens(c("Hello World", "Alice Bob Charlie"), "gpt-4o")
tokens
decode_tokens(tokens, "gpt-4o")
```

get_tokens	<i>Converts text to tokens</i>
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Description

Converts text to tokens

Usage

```
get_tokens(text, model)
```

Arguments

text	a character string to encode to tokens, can be a vector
model	a model to use for tokenization, either a model name, e.g., gpt-4o or a tokenizer, e.g., o200k_base. See also available tokenizers .

Value

a vector of tokens for the given text as integer

See Also

[model_to_tokenizer\(\)](#), [decode_tokens\(\)](#)

Examples

```
get_tokens("Hello World", "gpt-4o")
get_tokens("Hello World", "o200k_base")
```

get_token_count	<i>Returns the number of tokens in a text</i>
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Description

Returns the number of tokens in a text

Usage

```
get_token_count(text, model)
```

Arguments

text	a character string to encode to tokens, can be a vector
model	a model to use for tokenization, either a model name, e.g., gpt-4o or a tokenizer, e.g., o200k_base. See also available tokenizers .

Value

the number of tokens in the text, vector of integers

See Also

[model_to_tokenizer\(\)](#), [get_tokens\(\)](#)

Examples

```
get_token_count("Hello World", "gpt-4o")
```

model_to_tokenizer	<i>Gets the name of the tokenizer used by a model</i>
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Description

Gets the name of the tokenizer used by a model

Usage

```
model_to_tokenizer(model)
```

Arguments

model	the model to use, e.g., gpt-4o
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Value

the tokenizer used by the model

Examples

```
model_to_tokenizer("gpt-4o")
model_to_tokenizer("gpt-4-1106-preview")
model_to_tokenizer("text-davinci-002")
model_to_tokenizer("text-embedding-ada-002")
model_to_tokenizer("text-embedding-3-small")
```

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