

Package ‘GitAI’

May 20, 2025

Title Extracts Knowledge from 'Git' Repositories

Version 0.1.1

Description Scan multiple 'Git' repositories, pull specified files content and process it with large language models. You can summarize the content in specific way, extract information and data, or find answers to your questions about the repositories. The output can be stored in vector database and used for semantic search or as a part of a RAG (Retrieval Augmented Generation) prompt.

License MIT + file LICENSE

Encoding UTF-8

RoxygenNote 7.3.2

Depends R (>= 4.1.0)

Imports cli (>= 3.4.0), ellmer, GitStats (>= 2.2.0), httr2, lubridate, R6, S7, dplyr, purrr, rlang, glue

Suggests testthat (>= 3.0.0), shiny, shinychat, withr, knitr, rmarkdown

Config/testthat/edition 3

VignetteBuilder knitr

NeedsCompilation no

Author Kamil Wais [aut, cre],
Krystian Igras [aut],
Maciej Banas [aut]

Maintainer Kamil Wais <kamil.wais@gmail.com>

Repository CRAN

Date/Publication 2025-05-20 15:10:05 UTC

Contents

GitAI-package	2
add_files	2
find_records	3
initialize_project	3

is_verbose	4
missing_deps_note_fix	4
process_repos	4
set_database	5
set_github_repos	5
set_gitlab_repos	6
set_llm	6
set_prompt	7
verbose_off	7
verbose_on	7
Index	8

GitAI-package	<i>Derive knowledge from GitHub or GitLab repositories with the use of AI/LLM</i>
---------------	---

Description

Scan multiple 'Git' repositories, pull specified files content and process it with large language models. You can summarize the content in specific way, extract information and data, or find answers to your questions about the repositories. The output can be stored in vector database and used for semantic search or as a part of a RAG (Retrieval Augmented Generation) prompt.

Author(s)

Maintainer: Kamil Wais <kamil.wais@gmail.com>

Authors:

- Krystian Igras <krystian8207@gmail.com>
- Maciej Banas <banasmaciek@gmail.com>

add_files	<i>Add files to GitAI object.</i>
-----------	-----------------------------------

Description

Add files to GitAI object.

Usage

add_files(gitai, files)

Arguments

- | | |
|-------|---|
| gitai | A GitAI object. |
| files | A character vector of file paths. May be defined with regular expression. |

Value

A GitAI object.

find_records	<i>Finding top K records in a vector database.</i>
--------------	--

Description

Finding top K records in a vector database.

Usage

```
find_records(gitai, query, top_k = 1, verbose = is_verbose())
```

Arguments

gitai	A GitAI object.
query	A character, user query.
top_k	A numeric, number of top K records to return.
verbose	A logical. If FALSE you won't be getting additional diagnostic messages.

initialize_project	<i>Initialize a GitAI project.</i>
--------------------	------------------------------------

Description

Initialize a GitAI project.

Usage

```
initialize_project(project_id)
```

Arguments

project_id	A character, ID of the project.
------------	---------------------------------

Value

A GitAI object.

is_verbose	<i>Checks if GitAI is verbose</i>
------------	-----------------------------------

Description

The function searches for GITAI_VERBOSE environmental variable and tries to read it value as logical.

Usage

```
is_verbose()
```

Value

A logical. Default is TRUE.

missing_deps_note_fix	<i>This function is meant to fix 'Namespaces in Imports field not imported from:' R check note. The note shows up when namespace is used to create package object (not function) or within file marked at '.Rbuildignore' file.</i>
-----------------------	---

Description

This function is meant to fix 'Namespaces in Imports field not imported from:' R check note. The note shows up when namespace is used to create package object (not function) or within file marked at '.Rbuildignore' file.

Usage

```
missing_deps_note_fix()
```

process_repos	<i>Run LLM on GitAI repositories content</i>
---------------	--

Description

Run LLM on GitAI repositories content

Usage

```
process_repos(gitai, depth = 1, verbose = is_verbose())
```

Arguments

- gitai A GitAI object.
- depth A numeric, maximum depth of folders to process.
- verbose A logical. If FALSE you won't be getting additional diagnostic messages.

Value

A list.

set_database	<i>Setting database in GitAI object.</i>
--------------	--

Description

Setting database in GitAI object.

Usage

```
set_database(gitai, provider = "Pinecone", ...)
```

Arguments

- gitai A GitAI object.
- provider A string. Name of database provider.
- ... Additional arguments to pass to database provider constructor.

set_github_repos	<i>Set GitHub repositories in GitAI object.</i>
------------------	---

Description

Set GitHub repositories in GitAI object.

Usage

```
set_github_repos(gitai, ..., verbose = is_verbose())
```

Arguments

- gitai A GitAI object.
- ... Parameters to pass to [set_github_host](#) function.
- verbose A logical. If FALSE you won't be getting additional diagnostic messages.

Value

A GitAI object.

set_gitlab_repos	<i>Set GitLab repositories in GitAI object.</i>
------------------	---

Description

Set GitLab repositories in GitAI object.

Usage

```
set_gitlab_repos(gitai, ..., verbose = is_verbose())
```

Arguments

gitai	A GitAI object.
...	Parameters to pass to set_gitlab_host function.
verbose	A logical. If FALSE you won't be getting additional diagnostic messages.

Value

A GitAI object.

set_llm	<i>Set Large Language Model in GitAI object.</i>
---------	--

Description

Set Large Language Model in GitAI object.

Usage

```
set_llm(gitai, provider = "openai", ...)

get_llm_defaults(provider)
```

Arguments

gitai	A GitAI object.
provider	Name of LLM provider, a string. Results with setting up LLM using <code>ellmer::chat_<provider></code> function.
...	Other arguments to pass to corresponding <code>ellmer::chat_<provider></code> function. Please use get_llm_defaults to get default model arguments.

Value

A GitAI object.

set_prompt	<i>Set prompt.</i>
------------	--------------------

Description

Set prompt.

Usage

```
set_prompt(gitai, system_prompt)
```

Arguments

- gitai A GitAI object.
- system_prompt A system prompt.

Value

A GitAI object.

verbose_off	<i>Sets GitAI to be quiet.</i>
-------------	--------------------------------

Description

The function sets the GITAI_VERBOSE environmental variable to FALSE.

Usage

```
verbose_off()
```

verbose_on	<i>Sets GitAI to be verbose</i>
------------	---------------------------------

Description

The function sets the GITAI_VERBOSE environmental variable to TRUE.

Usage

```
verbose_on()
```

Index

`add_files`, [2](#)

`find_records`, [3](#)

`get_llm_defaults`, [6](#)

`get_llm_defaults (set_llm)`, [6](#)

`GitAI (GitAI-package)`, [2](#)

`GitAI-package`, [2](#)

`initialize_project`, [3](#)

`is_verbose`, [4](#)

`missing_deps_note_fix`, [4](#)

`process_repos`, [4](#)

`set_database`, [5](#)

`set_github_host`, [5](#)

`set_github_repos`, [5](#)

`set_gitlab_host`, [6](#)

`set_gitlab_repos`, [6](#)

`set_llm`, [6](#)

`set_prompt`, [7](#)

`verbose_off`, [7](#)

`verbose_on`, [7](#)