REST API / Search / Search



Q

The REST API is now versioned. For more information, see "About API versioning."

Search

Use the REST API to search for specific items on GitHub Enterprise Server.

About search @

You can use the REST API to search for the specific item you want to find. For example, you can find a user or a specific file in a repository. Think of it the way you think of performing a search on Google. It's designed to help you find the one result you're looking for (or maybe the few results you're looking for). Just like searching on Google, you sometimes want to see a few pages of search results so that you can find the item that best meets your needs. To satisfy that need, the GitHub Enterprise Server REST API provides **up to 1,000 results for each search**.

You can narrow your search using queries. To learn more about the search query syntax, see "Search."

Ranking search results &

Unless another sort option is provided as a query parameter, results are sorted by best match in descending order. Multiple factors are combined to boost the most relevant item to the top of the result list.

Rate limit &

Rate limits are disabled by default for GitHub Enterprise Server. Contact your site administrator to confirm the rate limits for your instance.

The REST API has a custom rate limit for searching. For authenticated requests, you can make up to 30 requests per minute. For unauthenticated requests, the rate limit allows you to make up to 10 requests per minute.

See the <u>rate limit documentation</u> for details on determining your current rate limit status.

Constructing a search query @

Each endpoint for searching uses <u>query parameters</u> to perform searches on GitHub Enterprise Server. See the individual endpoints for examples that include the endpoint and query parameters.

A query can contain any combination of search qualifiers supported on GitHub Enterprise Server. The format of the search query is:

SEARCH KEYWORD 1 SEARCH KEYWORD N QUALIFIER 1 QUALIFIER N

For example, if you wanted to search for all *repositories* owned by defunkt that contained the word GitHub and Octocat in the README file, you would use the following query with the *search repositories* endpoint:

GitHub Octocat in:readme user:defunkt

Note: Be sure to use your language's preferred HTML-encoder to construct your query strings. For example:

```
// JavaScript
const queryString = 'q=' + encodeURIComponent('GitHub Octocat in:readme user:defunkt');
```

See "Searching on GitHub" for a complete list of available qualifiers, their format, and an example of how to use them. For information about how to use operators to match specific quantities, dates, or to exclude results, see "Understanding the search syntax."

Limitations on query length &

You cannot use queries that:

- are longer than 256 characters (not including operators or qualifiers).
- have more than five AND, OR, or NOT operators.

These search queries will return a "Validation failed" error message.

Search scope limits &

To keep the REST API fast for everyone, we limit the number of repositories a query will search through. The REST API will find up to 4,000 repositories that match your filters and return results from those repositories.

Timeouts and incomplete results &

To keep the REST API fast for everyone, we limit how long any individual query can run. For queries that <u>exceed the time limit</u>, the API returns the matches that were already found prior to the timeout, and the response has the incomplete results property set to true.

Reaching a timeout does not necessarily mean that search results are incomplete. More results might have been found, but also might not.

Access errors or missing search results &

You need to successfully authenticate and have access to the repositories in your search queries, otherwise, you'll see a 422 Unprocessable Entry error with a "Validation Failed" message. For example, your search will fail if your query includes repo:, user:, or org: qualifiers that request resources that you don't have access to when you sign in on GitHub.

When your search query requests multiple resources, the response will only contain the resources that you have access to and will **not** provide an error message listing the resources that were not returned.

For example, if your search query searches for the octocat/test and codertocat/test repositories, but you only have access to octocat/test, your response will show search results for octocat/test and nothing for codertocat/test. This behavior mimics how search works on GitHub.

Text match metadata ₽

On GitHub, you can use the context provided by code snippets and highlights in search results. The endpoints for searching return additional metadata that allows you to highlight the matching search terms when displaying search results.

Requests can opt to receive those text fragments in the response, and every fragment is accompanied by numeric offsets identifying the exact location of each matching search term.

To get this metadata in your search results, specify the text-match media type in your Accept header.

```
application/vnd.github.text-match+json
```

When you provide the text-match media type, you will receive an extra key in the JSON payload called text matches

that provides information about the position of your search terms within the text and the property that includes the search term. Inside the text matches array, each object includes the following attributes:

Name	Description
object_url	The URL for the resource that contains a string property matching one of the search terms.
object_type	The name for the type of resource that exists at the given object_url .
property	The name of a property of the resource that exists at <code>object_url</code> . That property is a string that matches one of the search terms. (In the JSON returned from <code>object_url</code> , the full content for the <code>fragment</code> will be found in the property with this name.)
fragment	A subset of the value of property . This is the text fragment that matches one or more of the search terms.
matches	An array of one or more search terms that are present in fragment . The indices (i.e., "offsets") are relative to the fragment. (They are not relative to the <i>full</i> content of property .)

Example 🔗

Using a curl command, and the example issue search above, our API request would look like this:

```
curl -H 'Accept: application/vnd.github.text-match+json' \
'http(s)://<em>HOSTNAME</em>/api/v3/search/issues?q=windows+label:bug \
+language:python+state:open&sort=created&order=asc'
```

The response will include a text_matches array for each search result. In the JSON below, we have two objects in the text_matches array.

The first text match occurred in the body property of the issue. We see a fragment of text from the issue body. The search term (windows) appears twice within that fragment, and we have the indices for each occurrence.

The second text match occurred in the body property of one of the issue's comments. We have the URL for the issue comment. And of course, we see a fragment of text from the comment body. The search term (windows) appears once within that fragment.

```
"text_matches": [
   "object_url": "https://api.github.com/repositories/215335/issues/132",
    "object_type": "Issue",
    "property": "body",
    "fragment": "comprehensive windows font I know of).\n\nIf we can find a commonly
    distributed windows font that supports them then no problem (we can use html
    font tags) but otherwise the '(21)' style is probably better.\n",
    "matches": [
        "text": "windows",
        "indices": [
         14,
         21
        ]
      },
        "text": "windows",
        "indices": [
          78,
          85
```

```
}
      ]
    },
      "object url": "https://api.github.com/repositories/215335/issues/comments/25688",
      "object type": "IssueComment",
      "property": "body",
      "fragment": " right after that are a bit broken IMHO :). I suppose we could
      have some hack that maxes out at whatever the font does...\n\nI'll check
      what the state of play is on Windows.\n",
      "matches": [
          "text": "Windows",
          "indices": [
            163,
            170
          ]
        }
      ]
    }
 ]
}
```

Search code @

Works with GitHub Apps

Searches for query terms inside of a file. This method returns up to 100 results per page.

When searching for code, you can get text match metadata for the file **content** and file **path** fields when you pass the text-match media type. For more details about how to receive highlighted search results, see <u>Text match metadata</u>.

For example, if you want to find the definition of the addClass function inside <u>iQuery</u> repository, your query would look something like this:

```
q=addClass+in:file+language:js+repo:jquery/jquery
```

This query searches for the keyword addClass within a file's contents. The query limits the search to files where the language is JavaScript in the jquery/jquery repository.

Considerations for code search:

Due to the complexity of searching code, there are a few restrictions on how searches are performed:

- Only the *default branch* is considered. In most cases, this will be the master branch.
- Only files smaller than 384 KB are searchable.
- You must always include at least one search term when searching source code. For example, searching for language:go is not valid, while amazing language:go is.

Parameters for "Search code"

Headers

```
accept string
```

Setting to application/vnd.github+json is recommended.

Query parameters

y same negation

The query contains one or more search keywords and qualifiers. Qualifiers allow you to limit your search to specific areas of GitHub Enterprise Server. The REST API supports the same qualifiers as the web interface for GitHub Enterprise Server. To learn more about the format of the query, see Constructing a search query. See "Searching code" for a detailed list of qualifiers.

sort string

Sorts the results of your query. Can only be indexed , which indicates how recently a file has been indexed by the GitHub Enterprise Server search infrastructure. Default: best match

Value: indexed

order string

Determines whether the first search result returned is the highest number of matches (desc) or lowest number of matches (asc). This parameter is ignored unless you provide sort .

Default: desc

Can be one of: desc, asc

per_page integer

The number of results per page (max 100).

Default: 30

page integer

Page number of the results to fetch.

Default: 1

HTTP response status codes for "Search code"

Status code	Description
200	ОК
304	Not modified
403	Forbidden
422	Validation failed, or the endpoint has been spammed.
503	Service unavailable

Code samples for "Search code"



Response

Example response Response schema

Status: 200

{ "total count": 7. "incomplete results": false. "items": [{ "name": "classes.is". "path": "src/attributes/classes.is". "sha":

"d7212f9dee2dcc18f084d7df8f417b80846ded5a", "url": "https://HOSTNAME/repositories/167174/contents/src/attributes/classes.js?
ref=825ac3773694e0cd23ee74895fd5aeb535b27da4", "git_url":
"https://HOSTNAME/repositories/167174/git/blobs/d7212f9dee2dcc18f084d7df8f417b80846ded5a", "html_url":
"https://github.com/jquery/jquery/blob/825ac3773694e0cd23ee74895fd5aeb535b27da4/src/attributes/classes.js", "repository": { "id":
167174, "node_id": "MDEw0lJlcG9zaXRvcnkxNjcxNzQ=", "name": "jquery", "full_name": "jquery/jquery", "owner": { "login": "jquery", "

Search commits @

Works with GitHub Apps

Find commits via various criteria on the default branch (usually main). This method returns up to 100 results per page.

When searching for commits, you can get text match metadata for the **message** field when you provide the text-match media type. For more details about how to receive highlighted search results, see <u>Text match metadata</u>.

For example, if you want to find commits related to CSS in the <u>octocat/Spoon-Knife</u> repository. Your query would look something like this:

q=repo:octocat/Spoon-Knife+css

Parameters for "Search commits"

Headers

accept string

Setting to application/vnd.github+json is recommended.

Query parameters

q string Required

The query contains one or more search keywords and qualifiers. Qualifiers allow you to limit your search to specific areas of GitHub Enterprise Server. The REST API supports the same qualifiers as the web interface for GitHub Enterprise Server. To learn more about the format of the query, see <u>Constructing a search query</u>. See <u>"Searching commits"</u> for a detailed list of qualifiers.

sort string

Sorts the results of your query by author-date or committer-date . Default: best match

Can be one of: author-date, committer-date

order string

Determines whether the first search result returned is the highest number of matches (desc) or lowest number of matches (asc). This parameter is ignored unless you provide sort .

Default: desc

Can be one of: desc , asc

per_page integer

The number of results per page (max 100).

Default: 30

page integer

Page number of the results to fetch.

Default: 1

HTTP response status codes for "Search commits"

Status code	Description
200	OK
304	Not modified

Code samples for "Search commits"



Response

```
Example response Response schema

Status: 200

{ "total_count": 1, "incomplete_results": false, "items": [ { "url": "https://HOSTNAME/repos/octocat/Spoon-Knife/commits/bb4cc8d3b2e14b3af5df699876dd4ff3acd00b7f", "sha": "bb4cc8d3b2e14b3af5df699876dd4ff3acd00b7f", "html_url": "https://github.com/octocat/Spoon-Knife/commit/bb4cc8d3b2e14b3af5df699876dd4ff3acd00b7f", "comments_url": "https://HOSTNAME/repos/octocat/Spoon-Knife/commits/bb4cc8d3b2e14b3af5df699876dd4ff3acd00b7f/comments", "commit": { "url": "https://HOSTNAME/repos/octocat/Spoon-Knife/commits/bb4cc8d3b2e14b3af5df699876dd4ff3acd00b7f/comments", "commit": { "url": "https://HOSTNAME/repos/octocat/Spoon-Knife/git/commits/bb4cc8d3b2e14b3af5df699876dd4ff3acd00b7f", "author": { "date": "2014-02-04T14:38:36-08:00", "name": "The Octocat", "email": "octocat@nowhere.com" }, "committer": { "date": "2014-02-12T15:18:55-08:00", "
```

Search issues and pull requests @

Works with <u>GitHub Apps</u>

Find issues by state and keyword. This method returns up to 100 results per page.

When searching for issues, you can get text match metadata for the issue **title**, issue **body**, and issue **comment body** fields when you pass the text-match media type. For more details about how to receive highlighted search results, see Text match metadata.

For example, if you want to find the oldest unresolved Python bugs on Windows. Your query might look something like this.

q=windows+label:bug+language:python+state:open&sort=created&order=asc

This query searches for the keyword windows, within any open issue that is labeled as bug. The search runs across repositories whose primary language is Python. The results are sorted by creation date in ascending order, which means the oldest issues appear first in the search results.

Note: For requests made by GitHub Apps with a user access token, you can't retrieve a combination of issues and pull requests in a single query. Requests that don't include the <code>is:issue</code> or <code>is:pull-request</code> qualifier will receive an HTTP 422 Unprocessable Entity response. To get results for both issues and pull requests, you must send separate queries for issues and pull requests. For more information about the <code>is</code> qualifier, see "Searching only issues or pull requests."

Parameters for "Search issues and pull requests"

Headers

accept string

Setting to application/vnd.github+json is recommended.

Query parameters

q string Required

The query contains one or more search keywords and qualifiers. Qualifiers allow you to limit your search to specific areas of GitHub Enterprise Server. The REST API supports the same qualifiers as the web interface for GitHub Enterprise Server. To learn more about the format of the query, see <u>Constructing a search query</u>. See <u>"Searching issues and pull requests"</u> for a detailed list of qualifiers.

sort string

Sorts the results of your query by the number of comments, reactions, reactions-+1, reactions--1, reactions-smile, reactions-thinking_face, reactions-heart, reactions-tada, or interactions. You can also sort results by how recently the items were created or updated, Default: best match

Can be one of: comments, reactions, reactions-+1, reactions--1, reactions-smile, reactions-thinking_face, reactions-heart, reactions-tada, interactions, created, updated

order string

Determines whether the first search result returned is the highest number of matches (desc) or lowest number of matches (asc). This parameter is ignored unless you provide sort .

Default: desc

Can be one of: desc , asc

per_page integer

The number of results per page (max 100).

Default: 30

page integer

Page number of the results to fetch.

Default: 1

HTTP response status codes for "Search issues and pull requests"

Status code	Description
200	OK
304	Not modified
403	Forbidden
422	Validation failed, or the endpoint has been spammed.
503	Service unavailable

Code samples for "Search issues and pull requests"

GET /search/issues

cURL JavaScript GitHub CLI

```
curl -L \ -H "Accept: application/vnd.github+json" \ -H "Authorization: Bearer <YOUR-TOKEN>" \ -H "X-GitHub-Api-Version: 2022-11-28"
\ "http(s)://HOSTNAME/api/v3/search/issues?q=Q"
```

Response

```
Example response Response schema

Status: 200

{ "total_count": 280, "incomplete_results": false, "items": [ { "url": "https://HOSTNAME/repos/batterseapower/pinyin-toolkit/issues/132", "repository_url": "https://HOSTNAME/repos/batterseapower/pinyin-toolkit", "labels_url": "https://HOSTNAME/repos/batterseapower/pinyin-toolkit/issues/132/labels{/name}", "comments_url": "https://HOSTNAME/repos/batterseapower/pinyin-toolkit/issues/132/comments", "events_url": "https://HOSTNAME/repos/batterseapower/pinyin-toolkit/issues/132/events", "html_url": "https://github.com/batterseapower/pinyin-toolkit/issues/132/events", "number": 132, "title": "Line Number Indexes Beyond 20 Not
```

Search labels &

Works with GitHub Apps

Find labels in a repository with names or descriptions that match search keywords. Returns up to 100 results per page.

When searching for labels, you can get text match metadata for the label **name** and **description** fields when you pass the text-match media type. For more details about how to receive highlighted search results, see <u>Text match</u> metadata.

For example, if you want to find labels in the linguist repository that match bug, defect, or enhancement. Your query might look like this:

 $\verb|q=bug+defect+enhancement\&repository_id=64778136|$

The labels that best match the query appear first in the search results.

Parameters for "Search labels"

Headers

accept string

Setting to application/vnd.github+json is recommended.

Query parameters

repository_id integer Required

The id of the repository.

q string Required

The search keywords. This endpoint does not accept qualifiers in the query. To learn more about the format of the query, see <u>Constructing a search query</u>.

sort string

Sorts the results of your query by when the label was created or undated. Default: best match

ours are results or your query by miler are laber than areated or aparted i berault <u>best mate</u>

Can be one of: created, updated

order string

Determines whether the first search result returned is the highest number of matches (desc) or lowest number of matches (asc). This parameter is ignored unless you provide sort .

Default: desc

Can be one of: desc, asc

per_page integer

The number of results per page (max 100).

Default: 30

page integer

Page number of the results to fetch.

Default: 1

HTTP response status codes for "Search labels"

Status code	Description
200	OK
304	Not modified
403	Forbidden
404	Resource not found
422	Validation failed, or the endpoint has been spammed.

Code samples for "Search labels"



Response

```
Example response Response schema

Status: 200

{ "total_count": 2, "incomplete_results": false, "items": [ { "id": 418327088, "node_id": "MDU6TGFiZWw0MTgzMjcw0Dg=", "url": "https://HOSTNAME/repos/octocat/linguist/labels/enhancement", "name": "enhancement", "color": "84b6eb", "default": true, "description": "New feature or request.", "score": 1 }, { "id": 418327086, "node_id": "MDU6TGFiZWw0MTgzMjcw0DY=", "url": "https://HOSTNAME/repos/octocat/linguist/labels/bug", "name": "bug", "color": "ee0701", "default": true, "description": "Something isn't working.", "score": 1 } ] }
```

Search repositories &

Works with <u>GitHub Apps</u>

Find repositories via various criteria. This method returns up to 100 results per page.

When searching for repositories, you can get text match metadata for the **name** and **description** fields when you pass the text-match media type. For more details about how to receive highlighted search results, see <u>Text match</u> metadata.

For example, if you want to search for popular Tetris repositories written in assembly code, your query might look like this:

q=tetris+language:assembly&sort=stars&order=desc

This query searches for repositories with the word tetris in the name, the description, or the README. The results are limited to repositories where the primary language is assembly. The results are sorted by stars in descending order, so that the most popular repositories appear first in the search results.

Parameters for "Search repositories"

Headers

accept string

Setting to application/vnd.github+json is recommended.

Query parameters

q string Required

The query contains one or more search keywords and qualifiers. Qualifiers allow you to limit your search to specific areas of GitHub Enterprise Server. The REST API supports the same qualifiers as the web interface for GitHub Enterprise Server. To learn more about the format of the query, see Constructing a search query. See "Searching for repositories" for a detailed list of qualifiers.

sort string

Sorts the results of your query by number of stars , forks , or help-wanted-issues or how recently the items were updated . Default: best match

Can be one of: stars , forks , help-wanted-issues , updated

order string

Determines whether the first search result returned is the highest number of matches (desc) or lowest number of matches (asc). This parameter is ignored unless you provide sort .

Default: desc

Can be one of: desc , asc

per_page integer

The number of results per page (max 100).

Default: 30

page integer

Page number of the results to fetch.

Default: 1

Status code	Description
200	ОК
304	Not modified
422	Validation failed, or the endpoint has been spammed.
503	Service unavailable

Code samples for "Search repositories"



Response

```
Example response Response schema

Status: 200

{ "total_count": 40, "incomplete_results": false, "items": [ { "id": 3081286, "node_id": "MDEwOlJlcG9zaXRvcnkzMDgxMjg2", "name": "Tetris", "full_name": "dtrupenn/Tetris", "owner": { "login": "dtrupenn", "id": 872147, "node_id": "MDQ6VXNlcjg3MjE0Nw==", "avatar_url": "https://secure.gravatar.com/avatar/e7956084e75f239de85d3a31bc172ace?
d=https://a248.e.akamai.net/assets.github.com%2Fimages%2Fgravatars%2Fgravatar-user-420.png", "gravatar_id": "", "url": "https://HOSTNAME/users/dtrupenn/received_events", "type": "User", "html_url": "https://github.com/octocat", "followers_url": "https://HOSTNAME/users/octocat/followers", "following_url": "
```

Search topics @

Works with GitHub Apps

Find topics via various criteria. Results are sorted by best match. This method returns up to 100 results <u>per page</u>. See "<u>Searching topics</u>" for a detailed list of qualifiers.

When searching for topics, you can get text match metadata for the topic's **short_description**, **description**, **name**, or **display_name** field when you pass the text-match media type. For more details about how to receive highlighted search results, see <u>Text match metadata</u>.

For example, if you want to search for topics related to Ruby that are featured on https://github.com/topics. Your query might look like this:

```
q=ruby+is:featured
```

This query searches for topics with the keyword ruby and limits the results to find only topics that are featured. The topics that are the best match for the query appear first in the search results.

Parameters for "Search topics"

Headers

accept string

Setting to application/vnd.github+json is recommended.

Query parameters

q string Required

The query contains one or more search keywords and qualifiers. Qualifiers allow you to limit your search to specific areas of GitHub Enterprise Server. The REST API supports the same qualifiers as the web interface for GitHub Enterprise Server. To learn more about the format of the query, see <u>Constructing a search query</u>.

per_page integer

The number of results per page (max 100).

Default: 30

page integer

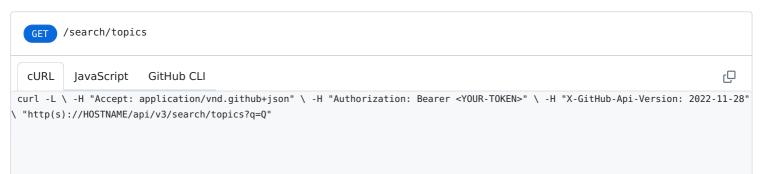
Page number of the results to fetch.

Default: 1

HTTP response status codes for "Search topics"

Status code	Description
200	OK
304	Not modified

Code samples for "Search topics"



Response

```
Example response Response schema

Status: 200

{ "total_count": 6, "incomplete_results": false, "items": [ { "name": "ruby", "display_name": "Ruby", "short_description": "Ruby is a scripting language designed for simplified object-oriented programming.", "description": "Ruby was developed by Yukihiro \\"Matz\\" Matsumoto in 1995 with the intent of having an easily readable programming language. It is integrated with the Rails framework to create dynamic web-applications. Ruby's syntax is similar to that of Perl and Python.", "created_by": "Yukihiro Matsumoto", "released": "December 21, 1995", "created_at": "2016-11-28T22:03:59Z", "updated_at": "2017-10-30T18:16:32Z", "featured": true, "curated": true, "score": 1 }, { "name": "rails", "display_name": "Rails", "short_description": "Ruby on Rails
```

Search users @

Works with <u>GitHub Apps</u>

Find users via various criteria. This method returns up to 100 results per page.

When searching for users, you can get text match metadata for the issue **login**, public **email**, and **name** fields when you pass the text-match media type. For more details about highlighting search results, see <u>Text match metadata</u>. For more details about how to receive highlighted search results, see <u>Text match metadata</u>.

For example, if you're looking for a list of popular users, you might try this query:

q=tom+repos:%3E42+followers:%3E1000

This query searches for users with the name tom. The results are restricted to users with more than 42 repositories and over 1,000 followers.

This endpoint does not accept authentication and will only include publicly visible users. As an alternative, you can use the GraphQL API. The GraphQL API requires authentication and will return private users, including Enterprise Managed Users (EMUs), that you are authorized to view. For more information, see "GraphQL Queries."

Parameters for "Search users"

Headers

accept string

Setting to application/vnd.github+json is recommended.

Query parameters

q string Required

The query contains one or more search keywords and qualifiers. Qualifiers allow you to limit your search to specific areas of GitHub Enterprise Server. The REST API supports the same qualifiers as the web interface for GitHub Enterprise Server. To learn more about the format of the query, see <u>Constructing a search query</u>. See "<u>Searching users</u>" for a detailed list of qualifiers.

sort string

Sorts the results of your query by number of followers or repositories, or when the person joined GitHub Enterprise Server.

Default: best match

Can be one of: followers, repositories, joined

order string

Determines whether the first search result returned is the highest number of matches (desc) or lowest number of matches (asc). This parameter is ignored unless you provide sort .

Default: desc

Can be one of: desc , asc

per_page integer

The number of results per page (max 100).

Default: 30

page integer

Page number of the results to fetch.

Default: 1

HTTP response status codes for "Search users"

Status code	Description
200	ОК
304	Not modified
422	Validation failed, or the endpoint has been spammed.
503	Service unavailable

Code samples for "Search users"



Response

```
Example response Response schema

Status: 200

{ "total_count": 12, "incomplete_results": false, "items": [ { "login": "mojombo", "id": 1, "node_id": "MDQ6VXNlcjE=", "avatar_url": "https://secure.gravatar.com/avatar/25c7c18223fb42a4c6ae1c8db6f50f9b?
d=https://a248.e.akamai.net/assets.github.com%2Fimages%2Fgravatars%2Fgravatar-user-420.png", "gravatar_id": "", "url": "https://HOSTNAME/users/mojombo", "html_url": "https://github.com/mojombo", "followers_url": "https://HOSTNAME/users/mojombo/followers", "subscriptions_url": "https://HOSTNAME/users/mojombo/subscriptions", "organizations_url": "https://HOSTNAME/users/mojombo/repos", "repos_url": "https://HOSTNAME/users/mojombo/repos", "
```

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