Job Search documentation

Method: projects.jobs.search

: X

Searches for jobs using the provided SearchJobsRequest.

This call constrains the visibility

(https://cloud.google.com/talent-solution/job-

search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.visibility)

of jobs present in the database, and only returns jobs that the caller has permission to search against.

HTTP request

POST https://jobs.googleapis.com/v4beta1/{parent=projects/*}/jobs:search

The URL uses gRPC Transcoding

(https://github.com/googleapis/googleapis/blob/master/google/api/http.proto) syntax.

Path parameters

Parameters	
parent	string
	Required. The resource name of the tenant to search within.
	The format is "projects/{project_id}/tenants/{tenantId}". For example, "projects/foo/tenant/bar". If tenant id is unspecified, a default tenant is created. For example, "projects/foo".

Request body

The request body contains data with the following structure:

```
JSON representation
  "searchMode": enum (SearchMode (https://cloud.google.com/talent-solution/job-search/docs/referen
  "requestMetadata": {
    object (RequestMetadata (https://cloud.google.com/talent-solution/job-search/docs/reference/res
  },
  "jobQuery": {
    object (<u>JobQuery</u> (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta
  "enableBroadening": boolean,
  "requirePreciseResultSize": boolean,
  "histogramQueries": [
    {
      object (HistogramQuery (https://cloud.google.com/talent-solution/job-search/docs/reference/re
    }
  ],
  "jobView": enum (<u>JobView</u>(https://cloud.google.com/talent-solution/job-search/docs/reference/rest/
  "offset": number,
  "pageSize": number,
  "pageToken": string,
  "orderBy": string,
  "diversificationLevel": enum (DiversificationLevel (https://cloud.google.com/talent-solution
  "customRankingInfo": {
    object (CustomRankingInfo (https://cloud.google.com/talent-solution/job-search/docs/reference/i
  },
  "disableKeywordMatch": boolean
```

Fields

Fields	
searchMode	enum (SearchMode (https://cloud.google.com/talent-solution/job- search/docs/reference/rest/v4beta1/SearchMode)) Mode of a search. Defaults to SearchMode.JOB_SEARCH (https://cloud.google.com/talent-solution/job- search/docs/reference/rest/v4beta1/SearchMode#ENUM_VALUES.JOB_ SEARCH) .
requestMetadata	object (RequestMetadata (https://cloud.google.com/talent-solution/job- search/docs/reference/rest/v4beta1/RequestMetadata)) Required. The meta information collected about the job searcher, used to improve the search quality of the service. The identifiers (such as userId) are provided by users, and must be unique and consistent.
jobQuery	object (<u>JobQuery</u> (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/JobQuery)) Query used to search against jobs, such as keyword, location filters, etc.
enableBroadening	boolean Controls whether to broaden the search when it produces sparse results. Broadened queries append results to the end of the matching results list. Defaults to false.

requirePreciseResultSize

boolean

Controls if the search job request requires the return of a precise count of the first 300 results. Setting this to **true** ensures consistency in the number of results per page. Best practice is to set this value to true if a client allows users to jump directly to a non-sequential search results page.

Enabling this flag may adversely impact performance.

Defaults to false.

histogramQueries[]

object (<u>HistogramQuery</u>

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/HistogramQuery)
)

An expression specifies a histogram request against matching jobs.

Expression syntax is an aggregation function call with histogram facets and other options.

Available aggregation function calls are: *

count(string_histogram_facet): Count the number of matching
entities, for each distinct attribute value. *

count(numeric_histogram_facet, list of buckets): Count the number of matching entities within each bucket.

Data types:

- Histogram facet: facet names with format [a-zA-Z][a-zA-Z0-9_]+.
- String: string like "any string with backslash escape for quote(")."
- Number: whole number and floating point number like 10, -1 and -0.01.
- List: list of elements with comma(,) separator surrounded by square brackets, for example, [1, 2, 3] and ["one", "two", "three"].

Built-in constants:

- MIN (minimum number similar to java Double.MIN_VALUE)
- MAX (maximum number similar to java Double.MAX_VALUE)

Built-in functions:

 bucket(start, end[, label]): bucket built-in function creates a bucket with range of [start, end). Note that the end is exclusive, for example, bucket(1, MAX, "positive number") or bucket(1, 10).

Job histogram facets:

- companyDisplayName: histogram by <u>Job.company_display_name</u> (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.company_display_name)
- employment_type: histogram by <u>Job.employment_types</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.employment_types)
 , for example, "FULL_TIME", "PART_TIME".
- companySize: histogram by <u>CompanySize</u>
 (https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/projects.companies#Company.CompanySize)
 , for example, "SMALL", "MEDIUM", "BIG".
- publish_time_in_month: histogram by the
 <u>Job.posting_publish_time</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.posting_publish_time)
 in months. Must specify list of numeric buckets in spec.
- publish_time_in_year: histogram by the <u>Job.posting_publish_time</u> (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.posting_publish_time)
 in years. Must specify list of numeric buckets in spec.
- degreeTypes: histogram by the <u>Job.degree_types</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.degree_types)
 , for example, "Bachelors", "Masters".
- jobLevel: histogram by the <u>Job. job_level</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.job_level)

- , for example, "Entry Level".
- country: histogram by the country code of jobs, for example, "US", "FR".
- admin1: histogram by the admin1 code of jobs, which is a global placeholder referring to the state, province, or the particular term a country uses to define the geographic structure below the country level, for example, "CA", "IL".
- city: histogram by a combination of the "city name, admin1 code". For example, "Mountain View, CA", "New York, NY".
- admin1_country: histogram by a combination of the "admin1 code, country", for example, "CA, US", "IL, US".
- city_coordinate: histogram by the city center's GPS coordinates (latitude and longitude), for example, 37.4038522,-122.0987765. Since the coordinates of a city center can change, customers may need to refresh them periodically.
- locale: histogram by the <u>Job.language_code</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.language_code)
 , for example, "en-US", "fr-FR".
- language: histogram by the language subtag of the <u>Job.language_code</u>

(https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.language_code)

, for example, "en", "fr".

- category: histogram by the <u>JobCategory</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.JobCategory)
 , for example, "COMPUTER_AND_IT", "HEALTHCARE".
- base_compensation_unit: histogram by the
 <u>CompensationInfo.CompensationUnit</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.CompensationUnit)
 of base salary, for example, "WEEKLY", "MONTHLY".
- base_compensation: histogram by the base salary. Must specify list of numeric buckets to group results by.

- annualized_base_compensation: histogram by the base annualized salary. Must specify list of numeric buckets to group results by.
- annualized_total_compensation: histogram by the total annualized salary. Must specify list of numeric buckets to group results by.
- string_custom_attribute: histogram by string

<u>Job.custom_attributes</u>

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.custo m_attributes)

- . Values can be accessed via square bracket notations like string_custom_attribute["key1"].
- numeric_custom_attribute: histogram by numeric Job.custom_attributes

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.custo

. Values can be accessed via square bracket notations like numeric_custom_attribute["key1"]. Must specify list of numeric buckets to group results by.

Example expressions:

m_attributes)

- count(admin1)
- count(base_compensation, [bucket(1000, 10000), bucket(10000, 100000), bucket(100000, MAX)])
- count(string_custom_attribute["some-string-customattribute"])
- count(numeric_custom_attribute["some-numeric-custom-attribute"], [bucket(MIN, 0, "negative"), bucket(0, MAX, "non-negative"])

Fields	
jobView	<pre>enum (JobView (https://cloud.google.com/talent-solution/job- search/docs/reference/rest/v4beta1/JobView)) The desired job attributes returned for jobs in the search response. Defaults to JobView.JOB_VIEW_SMALL (https://cloud.google.com/talent-solution/job- search/docs/reference/rest/v4beta1/JobView#ENUM_VALUES.JOB_VIE W_SMALL) if no value is specified.</pre>
offset	An integer that specifies the current offset (that is, starting result location, amongst the jobs deemed by the API as relevant) in search results. This field is only considered if pageToken (https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/projects.tenants.jobs/search#body.request_body.FIELDS.page_token) is unset. For example, 0 means to return results starting from the first matching job, and 10 means to return from the 11th job. This can be used for pagination, (for example, pageSize = 10 and offset = 10 means to return from the second page).
pageSize	number A limit on the number of jobs returned in the search results. Increasing this value above the default value of 10 can increase search response time. The value can be between 1 and 100.
pageToken	The token specifying the current offset within search results. See SearchJobsResponse.next_page_token (https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/SearchJobsResponse#FIELDS.next_page_token) for an explanation of how to obtain the next set of query results.
orderBy	string

The criteria determining how search results are sorted. Default is "relevance desc".

Supported options are:

- "relevance desc": By relevance descending, as determined by the API algorithms. Relevance thresholding of query results is only available with this ordering.
- "postingPublishTime desc": By <u>Job.posting_publish_time</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.posting_publish_time)
 descending.
- "postingUpdateTime desc": By <u>Job.posting_update_time</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.posting_update_time)
 descending.
- "title": By <u>Job.title</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.title) ascending.
- "title desc": By <u>Job.title</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.title)
 descending.
- "annualized_base_compensation": By job's
 <u>CompensationInfo.annualized_base_compensation_range</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.CompensationInfo.FIELDS.annualized_base_compensation_range)
 ascending. Jobs whose annualized base compensation is unspecified are put at the end of search results.
- "annualized_base_compensation desc": By job's
 <u>CompensationInfo.annualized_base_compensation_range</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.CompensationInfo.FIELDS.annualized_base_compensation_range)
 descending. Jobs whose annualized base compensation is unspecified are put at the end of search results.

- "annualized_total_compensation": By job's
 <u>CompensationInfo.annualized_total_compensation_range</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.CompensationInfo.FIELDS.annualized_total_compensation_range)
 ascending. Jobs whose annualized base compensation is unspecified are put at the end of search results.
- "annualized_total_compensation desc": By job's
 <u>CompensationInfo.annualized_total_compensation_range</u>
 (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.CompensationInfo.FIELDS.annualized_total_compensation_range)
 descending. Jobs whose annualized base compensation is unspecified are put at the end of search results.
- "custom_ranking desc": By the relevance score adjusted to the
 <u>SearchJobsRequest.CustomRankingInfo.ranking_expression</u>
 (https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/CustomRankingInfo#FIELDS.ranking_expression)
 with weight factor assigned by
 <u>SearchJobsRequest.CustomRankingInfo.importance_level</u>
 (https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/CustomRankingInfo#FIELDS.importance_level)
 in descending order.
- Location sorting: Use the special syntax to order jobs by distance:
 "distance_from('Hawaii')": Order by distance from Hawaii.
 "distance_from(19.89, 155.5)": Order by distance from a coordinate.

"distance_from('Hawaii'), distance_from('Puerto
Rico')": Order by multiple locations. See details below.
"distance_from('Hawaii'), distance_from(19.89, 155.5)":
Order by multiple locations. See details below.

The string can have a maximum of 256 characters. When multiple distance centers are provided, a job that is close to any of the distance centers would have a high rank. When a job has multiple locations, the job location closest to one of the distance centers will be used. Jobs that don't have locations will be ranked at the bottom. Distance is calculated with a precision of 11.3 meters (37.4 feet). Diversification strategy is still applied unless explicitly disabled in

diversificationLevel

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/projects.tenants.jobs/search#b ody.request_body.FIELDS.diversification_level)

diversificationLevel

enum (DiversificationLevel

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/DiversificationLevel)

Controls whether highly similar jobs are returned next to each other in the search results. Jobs are identified as highly similar based on their titles, job categories, and locations. Highly similar results are clustered so that only one representative job of the cluster is displayed to the job seeker higher up in the results, with the other jobs being displayed lower down in the results.

Defaults to <u>DiversificationLevel.SIMPLE</u>

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/DiversificationLevel#ENUM_VALUE S.SIMPLE)

if no value is specified.

customRankingInfo

object (<u>CustomRankingInfo</u>

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/CustomRankingInfo)
)

Controls over how job documents get ranked on top of existing relevance score (determined by API algorithm).

disableKeywordMatch

boolean

Controls whether to disable exact keyword match on <u>Job.title</u> (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.title)

, Job.description

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.descripti on)

, Job.company_display_name

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.compan y_display_name)

, <u>Job.addresses</u>

(https://cloud.google.com/talent-solution/jobsearch/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.addresse s)

, Job.qualifications

(https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.jobs#Job.FIELDS.qualifications)

. When disable keyword match is turned off, a keyword match returns jobs that do not match given category filters when there are matching keywords. For example, for the query "program manager," a result is returned even if the job posting has the title "software developer," which doesn't fall into "program manager" ontology, but does have "program manager" appearing in its description.

For queries like "cloud" that don't contain title or location specific ontology, jobs with "cloud" keyword matches are returned regardless of this flag's value.

Use <u>Company.keyword_searchable_job_custom_attributes</u> (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/projects.companies#Company.FIEL DS.keyword_searchable_job_custom_attributes) if company-specific globally matched custom field/attribute string values are needed. Enabling keyword match improves recall of subsequent search requests.

Defaults to false.

Response body

If successful, the response body contains an instance of <u>SearchJobsResponse</u> (https://cloud.google.com/talent-solution/job-search/docs/reference/rest/v4beta1/SearchJobsResponse).

Authorization Scopes

Requires one of the following OAuth scopes:

- https://www.googleapis.com/auth/jobs
- https://www.googleapis.com/auth/cloud-platform

For more information, see the <u>Authentication Overview</u> (https://cloud.google.com/docs/authentication/).

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