

Flickr GeoSearch V3.0

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Need to geo-query over 6 billion photos quickly and effortlessly?

Flickr GeoSearch is an all-inclusive python application that leverages the Flickr API to execute geospatial photo searches across the entire Flickr photo community. Created with Python 3.0, Flickr GeoSearch is lightweight, portable, and cross-compatible with Windows, macOS, and Linux. Simple to use and distribute, Flickr GeoSearch opens the door for anyone to use and analyze social media big data. Open source friendly and licensed under GNU GPL v3.

What you need:

- A copy of the latest Flickr GeoSearch program available at: <https://github.com/mtralka/FLICKR-GeoSearch>
- Flickr API Key & Secret Key get at: <https://www.flickr.com/services/apps/create>

Search Variables

Boundary Box (BBOX) – *Min Lat, Min Long, Max Lat, Max Long*

User defined coordinate grid delineates search area

OR

Radial – *Lat, Long, Radius (max 20mi / 32km), Units (20mi / 32km)*

Point based query method defines radial search grid around user identified coordinate point.

Accuracy – defined between 1 : World to 16 : Street

Recorded accuracy of photo location information. Manipulate slider or input manually.

Minimum Date Taken – defined between 2004, Flickr's inception, to present.

Limits query to photos taken greater than or equal to input. Ex. 'Jan' – '01' – '2017'

Maximum Data Taken – defined between 2004, Flickr's inception, to present.

Limits query to photos taken less than or equal to input. Ex. 'Dec' – '25' – '2017'

Search Tags – must be comma delimited

Limits query to photos identified with user defined tags. Ex. 'mountain,stream,tourism'

Upload to Gallery – expect 3 minutes per 500 results

Uploads photo results to calling user's Flickr Galleries. Time intensive due to API restrictions.

Get Owner Info –

Additionally return photographers' real names and hometowns as expressed on a user's Flickr bio.



API Authentication Process

Before initiating a search, you must authenticate the Flickr GeoSearch program. To do so, navigate to 'File' → 'API-Authentication'. Where prompted, please type or paste your unique credentials. When ready, select 'Validate' to complete the initial OAuth 2-Factor validation process. If this is your first time using the program, a web browser window will appear and provide you with a unique temporary authorization Token. Please input this Token where prompted in the GUI and proceed with 'Authenticate'. The GUI will reflect when Flickr gives valid permissions. Once the Flickr GeoSearch program is validated, you will not need to repeat this process. Authentication is valid for the entire program session; re-authentication is not needed between searches. Flickr GeoSearch does not store user credentials and you will need to re-authenticate –but typically not validate– before next use.

Search Results

When a search is complete, the processing icon will disappear from your screen center, the program is immediately ready for a new query. Flickr GeoSearch will automatically format search results into an Excel file to the directory and name defined by the user under "Output File". The "Save As" button provides a convenient way to define this file path on Windows. The returning Excel file will have 2 constructed worksheets. The maximum tested results are approximately 90 thousand photos. Past then, the Flickr API tends to throw overload errors. Therefore, it is recommended to split up searches to ensure no errors occur.

1. The first worksheet will list the defining parameters used to fetch the corresponding query results on worksheet 2.
2. The second worksheet contains the table instance of search results. The table schema is given below. Please note, *Owner Real Name* and *Owner Hometown* are only returned if explicitly requested as reviewed above.

Photo Number | Photo ID | Secret | Title | WOE ID | Longitude | Latitude | Accuracy | Owner Name | Original Format | Date Uploaded | Date Taken | Time Taken | Icon Server | Last Update | Link | Owner Real Name | Owner Hometown | Tags

If defined by the user, Flickr GeoSearch will additionally add all returned photos to the calling user's gallery. This process is time-intensive due to API restrictions. Please note, not all photos are able to be added to a third-party gallery, exercise caution. Flickr galleries are natively limited to 500 photos. To bypass this limitation, Flickr GeoSearch will create multiple galleries labeled intuitively by date and time the search was requested. Photos within each gallery are labeled with a *Photo Number* that corresponds to the generated Excel file.

Main Libraries: PySimpleGUI (tkinter), flickrapi, xlswriter

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