

EXPERMINT: 04

● **Aim:** To perform the reverse Image analysis for finding physical location where the content was captured. Use OSINT tool to use image metadata, landmarks, street signs, or other visual cues to identify the geolocation accurately.

● **Theory:**

Images can provide a wealth of value to an OSINT investigation, they can show what a subject looks like, locations where the subject has been, and any vehicles used. Identifying this information can facilitate actions like surveillance or arrests, which would otherwise be reliant on text-based descriptions.

Using search engines and free tools, investigators can utilize images to develop the intelligence picture, identify devices used to take images, identify where and when images were taken, and identify if a social media account belongs to a subject.

This article will detail reverse image searching, facial comparison, deepfakes, and metadata, showing you how to get the most value from your image-based OSINT investigations.

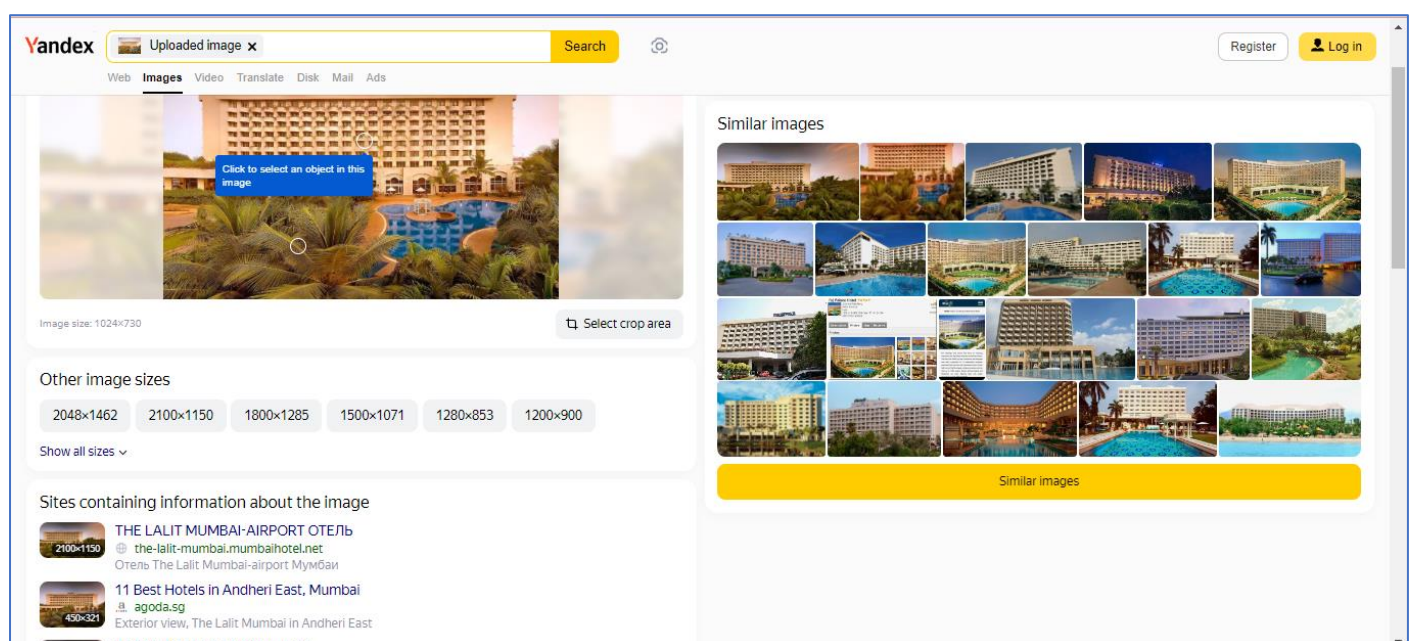
Reverse Image Searching

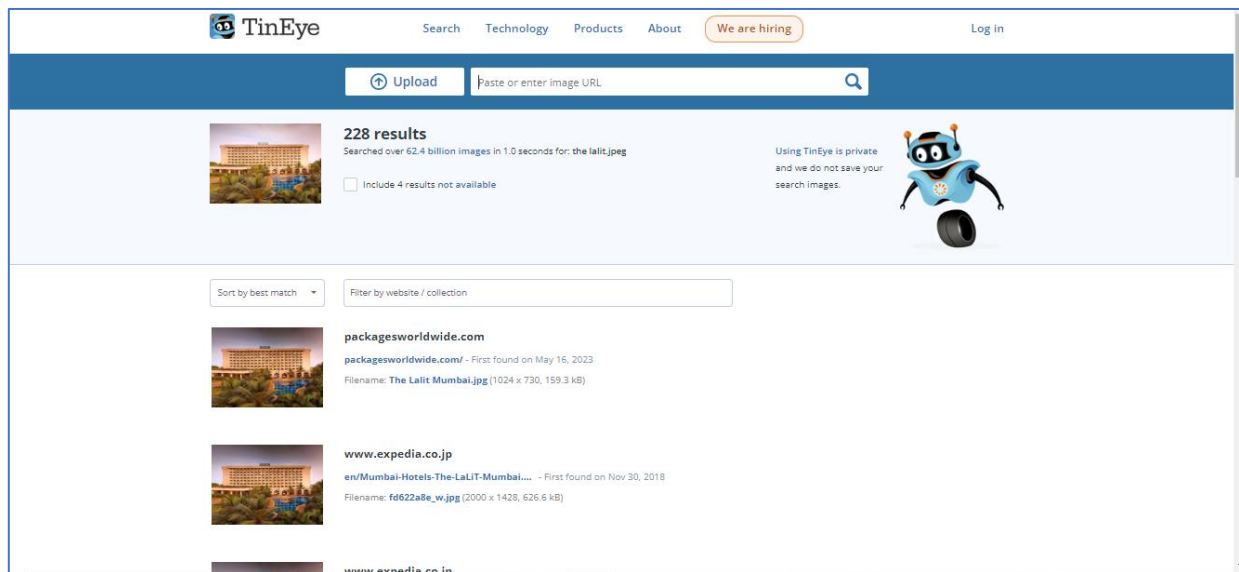
Using Search Engines, you can quickly discover visually similar photos from around the web using Reverse Image Searching technology, utilizing content-based image retrieval (CBIR) query techniques. Uploading a photograph from your device or inputting the URL of an image, you can ask a search engine to locate and show you related images used on other websites, either those images that are exactly the same or the same but a different size, or those that contain similar looking items or people.

Reverse Image Searching can be used as part of an investigation to identify related images relating to images that contain statues, buildings, places, people, and logos. Using Search Engines, you may be able to identify where an image was taken by recognizing a statue or building in the background that can be identified by the Search Engine. Similarly, Search Engines may be able to locate other images of your subject or logos on sites that identify them

Some of the best sites for Reverse Image Searching include:

the reverse Image analysis:





File	
File Type	JPEG
File Type Extension	.jpg
MIME Type	image/jpeg
Exif Byte Order	Little-endian (Intel, II)
Image Width	1024
Image Height	730
Encoding Process	Baseline DCT, Huffman coding
Bits Per Sample	8
Color Components	3
Y Cb Cr Sub Sampling	YCbCr4:2:0 (2 2)
JFIF	
JFIF Version	1.01
EXIF	
Orientation	Horizontal (normal)
Software	Snapseed 2.0
Modify Date	2022:12:02 18:29:39
Exif Version	0210
Color Space	sRGB
Exif Image Width	1024
Exif Image Height	730
Interoperability Index	R98 - DCF basic file (sRGB)
Interoperability Version	0100
Image Unique ID	a7f73e15e024e7700000000000000000
Compression	JPEG (old-style)
X Resolution	72
Y Resolution	72
Resolution Unit	inches
Thumbnail Offset	374
Thumbnail Length	6659
Thumbnail Image	(Binary data 6659 bytes)
Composite	
Image Size	1024x730
Megapixels	0.748

● Conclusion:

The reverse image analysis for geolocation is a powerful OSINT technique that can be a valuable asset for researchers, investigators, and those concerned with the origin and credibility of digital imagery. It is a useful tool for enhancing the verification and contextual understanding of visual content.