

1. How to run

- backend

open the backend project 'lab2-image-retrieval' on pycharm or cmd.

run 'rest-server.py'.

- frontend

open the folder 'frontend' and click the index.html to run in the browser.

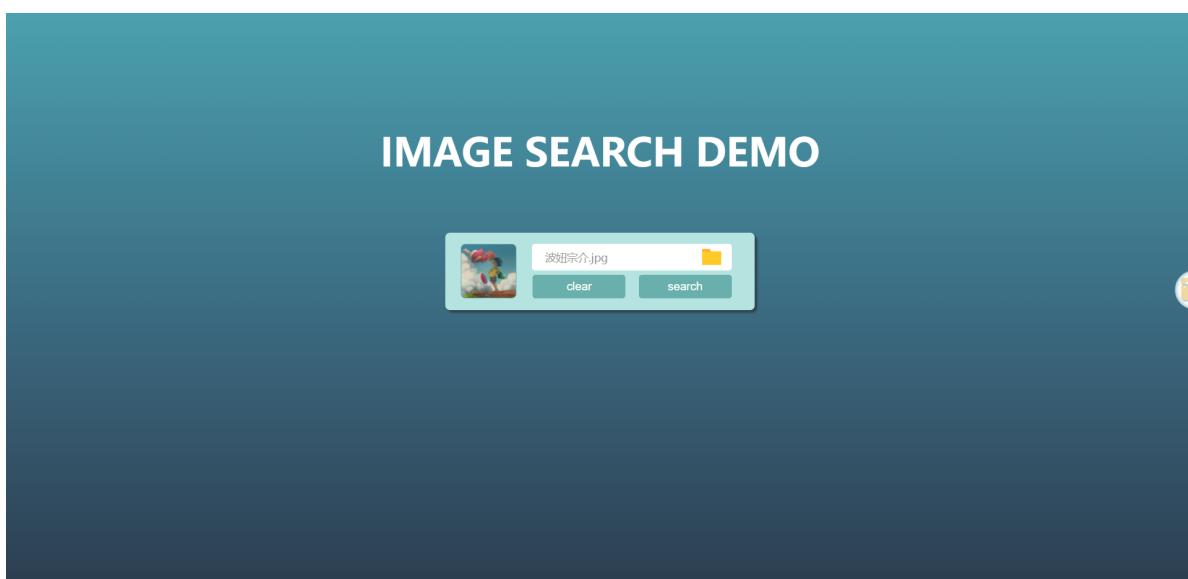
2 Functions

Upload

You can click the button in the right of this input box to upload image.

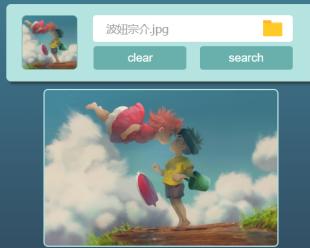


upload successfully!



You can view the large image by hovering the thumbnail with mouse.

IMAGE SEARCH DEMO



Click the clear button can return to initial state.

Search

You can click the search button to search similar images.

IMAGE SEARCH DEMO



search successfully!

IMAGE SEARCH DEMO



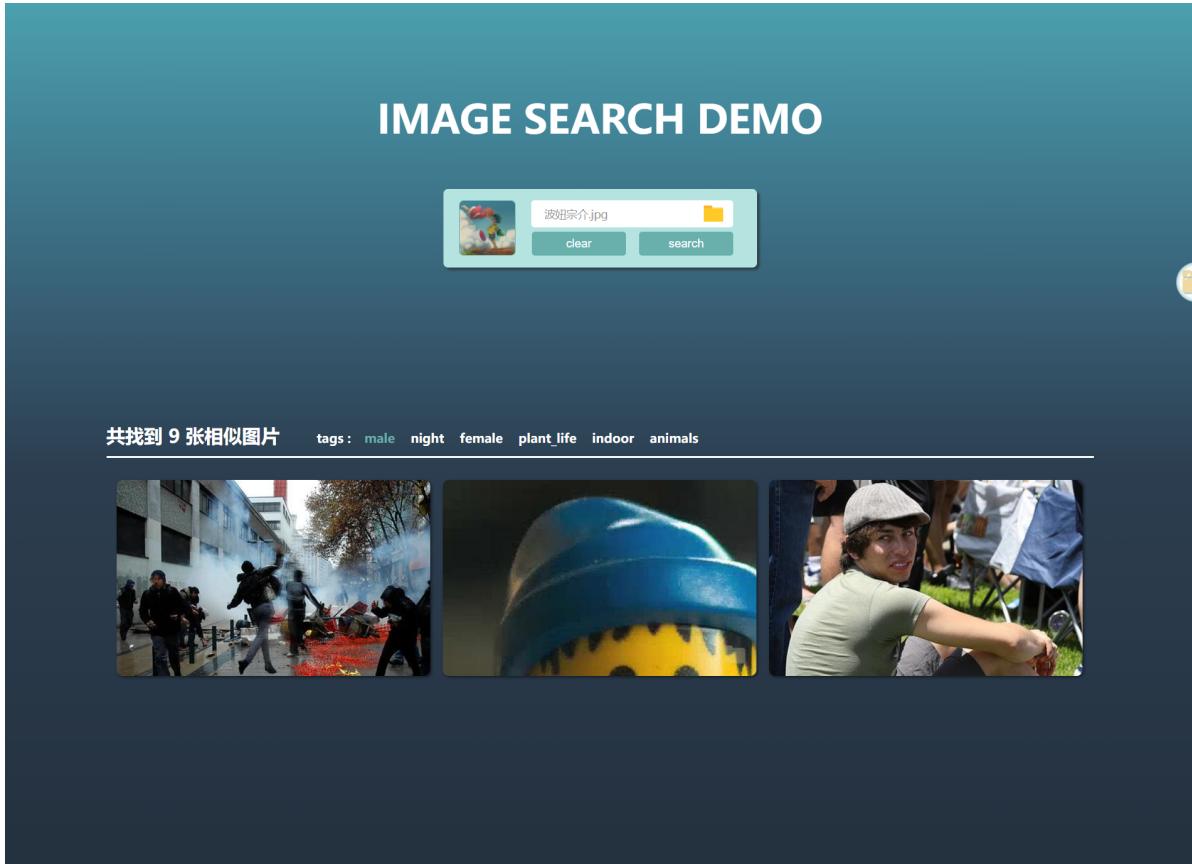
共找到 9 张相似图片 tags : male night female plant_life indoor animals



Change tag

You can click the different tags to select the image you like.

IMAGE SEARCH DEMO



Favorite and delete

You can click the button fixed on the right side of the screen, and then the favorite list will move out slowly from the right of screen.

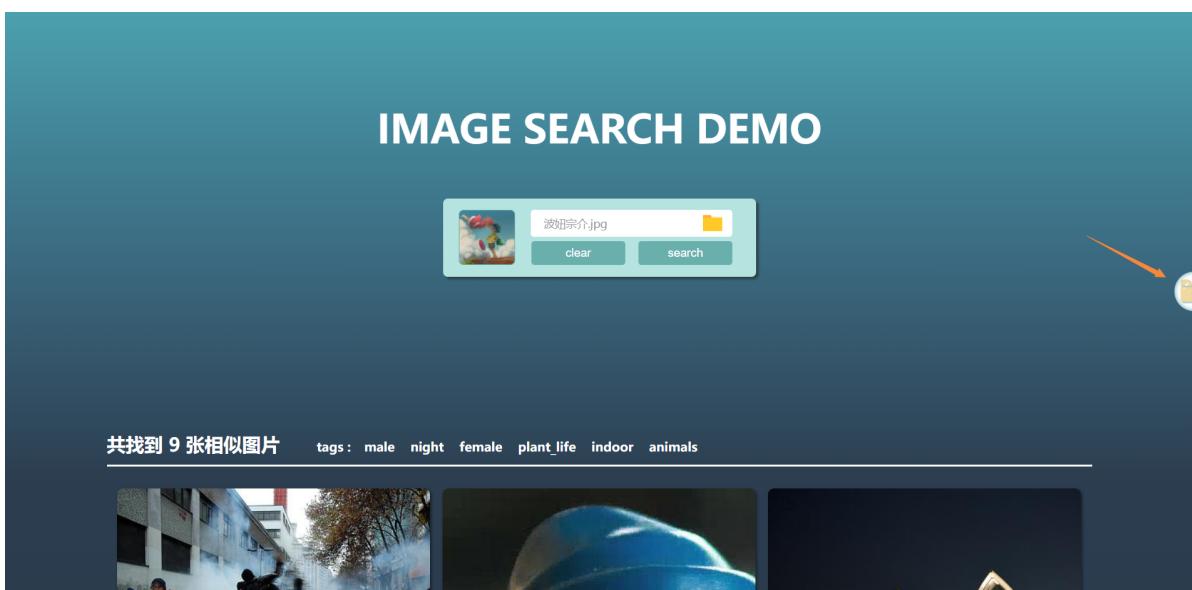
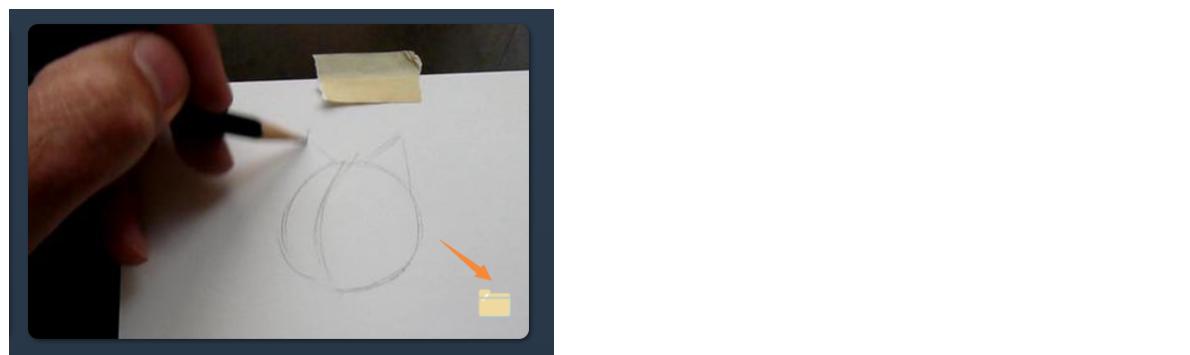


IMAGE SEARCH DEMO

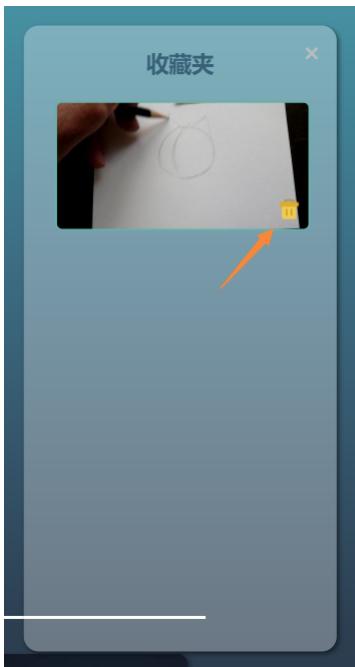
The screenshot shows a search interface for an image titled "波妞宗介.jpg". The search bar includes a file icon, the image name, a clear button, and a search button. Below the search bar, it says "共找到 9 张相似图片" and lists "tags: male night female plant_life indoor animals". Three thumbnail images are displayed below this text.

If you like an image, you can click the favorite icon fixed on the right-bottom of it to add it into the favorite list.



The screenshot shows the same search interface as the first one, with the search bar containing "波妞宗介.jpg". It displays the same "tags" information and three thumbnail images below the text "共找到 9 张相似图片". The sidebar on the right shows a thumbnail of the hand-drawn circle from the previous image, with a yellow folder icon at the bottom-right corner.

If you want to delete the image from favorite list, just click the delete icon fixed on the right-bottom of this image.



3. Project Structure

```
|--frontend
|   |--index.css
|   |--index.html
|   |
|   \--assets
|
\--lab2-image-retrieval
    |--README.md
    |--__init__.py
    |
    \--server
        |--image_vectorizer.py
        |--neighbor_list_recom.pickle
        |--rest-server.py
        |--saved_features_recom.txt
        |--search.py
        |
        \--database
            |--dataset
            |--tags
            |
            \--imagenet
            |
            \--static
                |--images
                \--result
                |
                \--templates
                    |--main.html
                    |
                    \--uploads
```

