Iris Recognition Challenge Supplement

v1 2025.05.09

Outline

- Schedule
- Data
- Evaluation
- Code Submission
- Report Submission
- Grading

Schedule

- Evaluation server open
 - 0 2025/05/11 00:00
- Evaluation server close
 - o 2025/06/01 23:59
- Oral presentation
 - 2025/06/06 14:20~15:50 (Tentative)
- Code submission
 - 0 2025/06/8 23:59
- Report submission
 - o 2025/06/8 23:59

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Please download all the required files from <u>Ganzin_supplement4student</u>.

- In run.py, replace the TODO part by your algorithm
- Run the following script to get the output list of predictions
- \$ python3 run.py --input <path to your input list> --output <path to your output list>

```
img1 = cv2.imread(img1_path, cv2.IMREAD_GRAYSCALE)
img2 = cv2.imread(img2_path, cv2.IMREAD_GRAYSCALE)

# TODO: Replace with your algorithm
score = np.random.rand()

output_line = f"{img1_path}, {img2_path}, {score}"
print(output_line)
out_file.write(output_line.rstrip('\n') + '\n')
```

- Released Data: Thousand, Lamp, Gaze
- You are encouraged to
 - Use any iris recognition method or pretrained model on external datasets
 - Train from scratch or fine-tune on external datasets
- You are not allowed to
 - Directly using pretrained models already trained on released data
 - Train from scratch or fine-tune on testing set of released data

In list_*.txt, each line contains the filenames of a comparison pair

```
dataset/CASIA-Iris-Thousand/000/L/S5000L03.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L06.jpg dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg dataset/CASIA-Iris-Thousand/000/L/S5000L06.jpg dataset/CASIA-Iris-Thousand/000/L/S5000L06.jpg dataset/CASIA-Iris-Thousand/000/L/S5000L00.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L06.jpg dataset/CASIA-Iris-Thousand/000/L/S5000L02.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L04.jpg dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg dataset/CASIA-Iris-Thousand/000/L/S5000L02.jpg
```

- In list_*.txt, each line contains the filenames of a comparison pair
- Append the dissimilarity score at the end of each line (by your algorithm)

```
dataset/CASIA-Iris-Thousand/000/L/S5000L03.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L06.jpg, 0.3460497900373056 dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg, 0.7478731829104426 dataset/CASIA-Iris-Thousand/000/L/S5000L06.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L06.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L06.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L06.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L04.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L04.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L09.jpg, 0.35110357684650495 dataset/CASIA-Iris-Thousand/000/L/S5000L00.jpg, dataset/CASIA-Iris-Thousand/000/L/S5000L02.jpg, 0.36677546753677603
```

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Evaluation

- Run the following script to get the d'score of your predictions
- \$ python3 eval.py --input <path to your output list>

Evaluation

Codabench

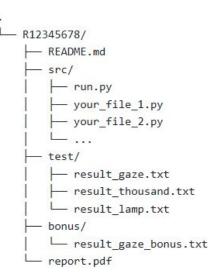
- Our project would be held on Codabench
- Competition <u>Link</u>
- Note that you don't need to submit the results of bonus testing list to Codabench
- Registration Flow
 - Sign up an account on <u>Codabench</u>
 - Email TA (<u>mplin@media.ee.ntu.edu.tw</u>) with the account name of your team
 - We would only approve registration request once you email us
- The competition is available from 05/11 0:00 to 06/01 23:59

Code Submission

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Code Submission

- R12345678/
 - o README file
 - Source code (which can reproduce the result on the leaderboard)
 - Output list of predictions
 - Name your result with the specified format
 - Put them under "test" folder
 - Output list of predictions (bonus)
 - Name your result with the specified format
 - Put them under "bonus" folder
 - Brief description of models and your method(pdf file; content is not restricted; serve just as a reference for the selection of teams for oral presentations)
- Compress all the files in a zip file named StudentID.zip (e.g. R12345678.zip)
 - Upon extraction, only one directory named R12345678 should be generated



Code Submission

- Only the team leader need to upload the code to NTU COOL
- Clearly describe how to set up the environment in the README file
 - Provide steps by steps instruction (ideally a bash script) to build the environment
 - So that TA can reproduce the result
- If we can not reproduce your result on the leaderboard....
 - You will receive 0 point in the performance part
 - However, minor errors are acceptable
- We will excute your code on Linux system
 - Make sure your code can be excuted on Linux system before submission
- Deadline: 2025/06/08 23:59

Report Submission

- Schedule
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- Report Submission
- Grading

Report Submission

- Only the team leader need to upload the code to NTU COOL
- For presentation teams...
 - Upload your presentation slide in ppt format
- For other team...
 - Upload your report in pdf format
- Deadline: 2025/06/08 23:59

Grading

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Grading

- Performance (60%)
 - CASIA-Iris-Thousand (20%)
 - CASIA-Iris-Lamp (20%)
 - Ganzin-J7EF-Gaze (20%)
- Report (40%) (For Top 10 Teams)
 - Novelty and technical contribution (15%)
 - Experiment completeness (15%)
 - Oral Presentation (10%)
- Report (40%) (For Others)
 - Novelty and technical contribution (20%)
 - Experiment completeness (20%)
- Bonus (10%)
 - The d'score on bonus testing list
 - The baseline would be announced later

Points (For each Metric)	# of Teams
20%	1
19%	2
18%	2
16%	The rest teams / 4
15%	The rest teams / 4
14%	The rest teams / 4
13%	The rest teams / 4

Reminder

- Please start working on the project as early as possible.
- Please read and follow the rules carefully.
- Taking any unfair advantages (e.g., plagiarism) over other class members is strictly prohibited.
 - Violating university policy would result in F for this course.
- If you have any problems on the project ...
 - Issue it on the NTU COOL forum
 - Send email to mplin@media.ee.ntu.edu.tw (林孟平)