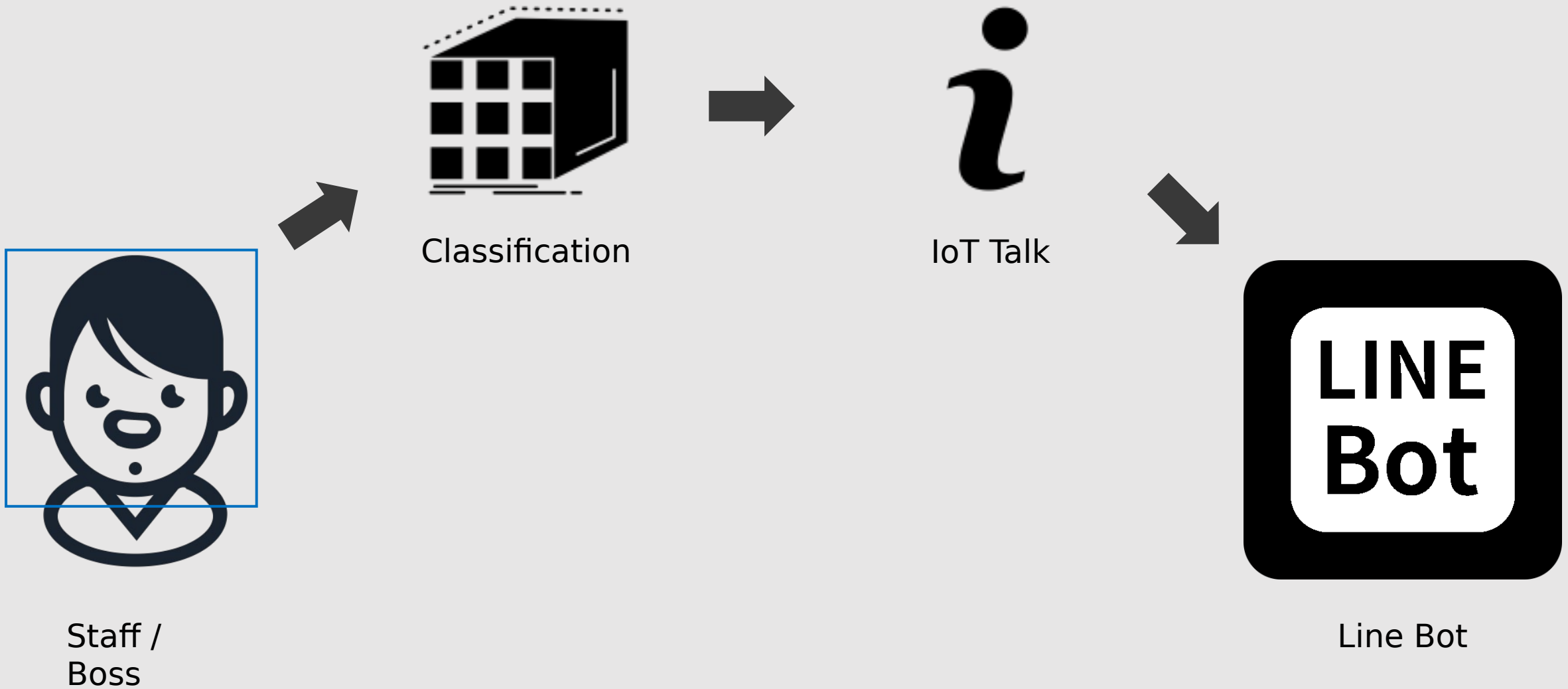


Boss Face Detection IoT

楊承翰 周承翰 黃俊凱



Overview



Face Detection



Staff ?
Boss ?



Boss



Aaron

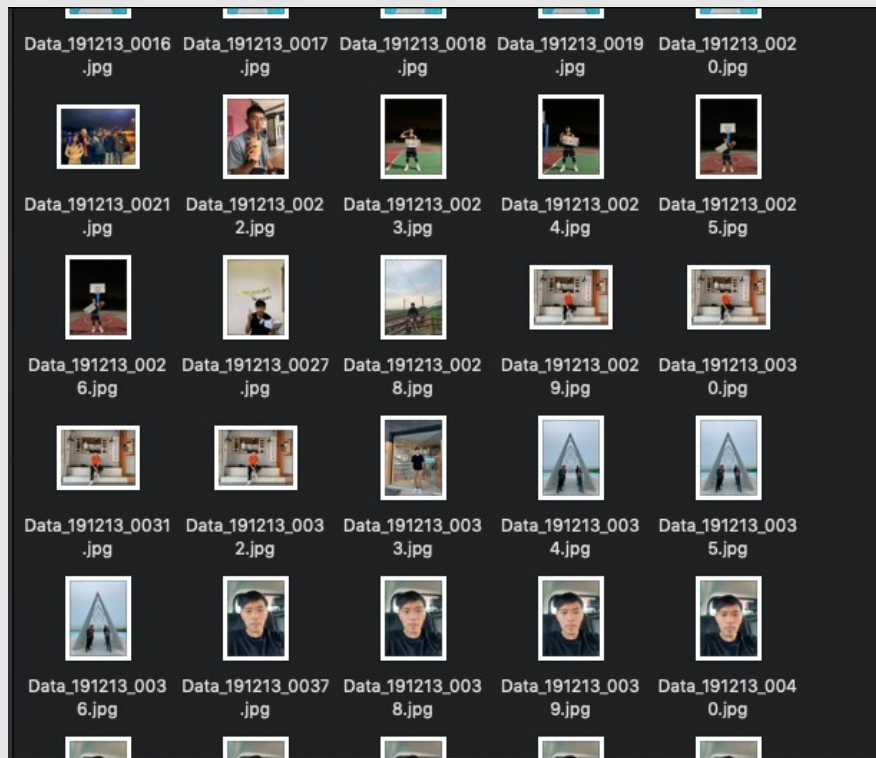
•
•
•



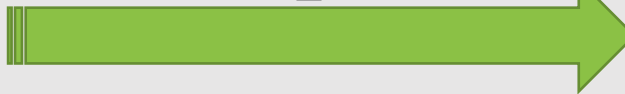
Boss !!

1. Collect data

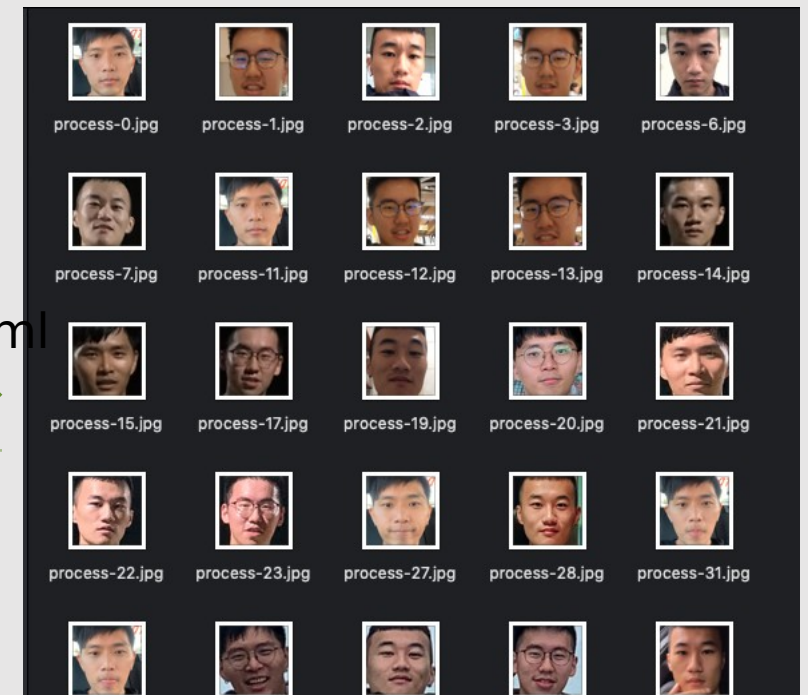
- Original photo :



OpenCV:
lbpcascade_frontalface.xml

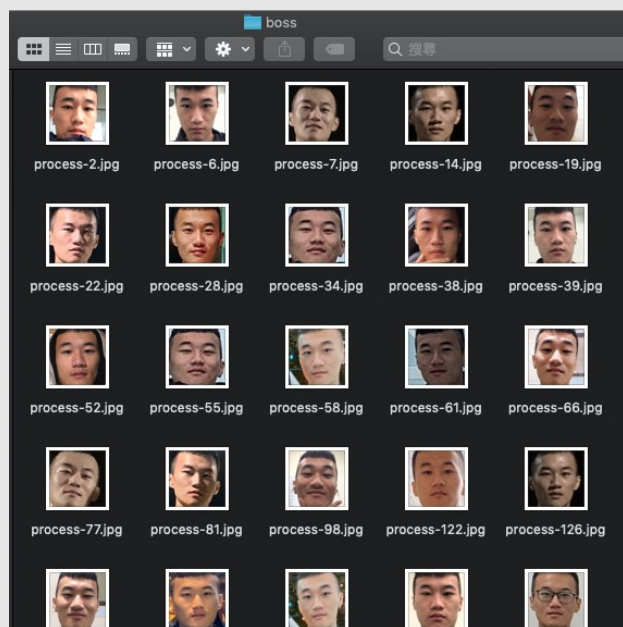


- Extract faces :

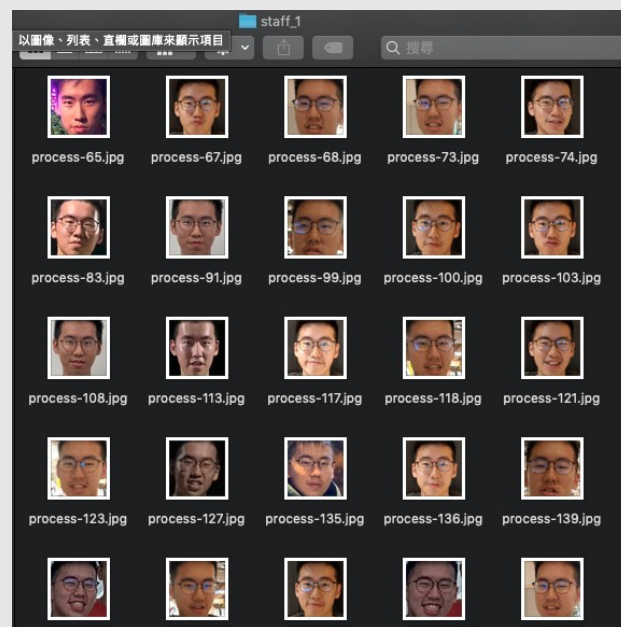


2. Classifier to file

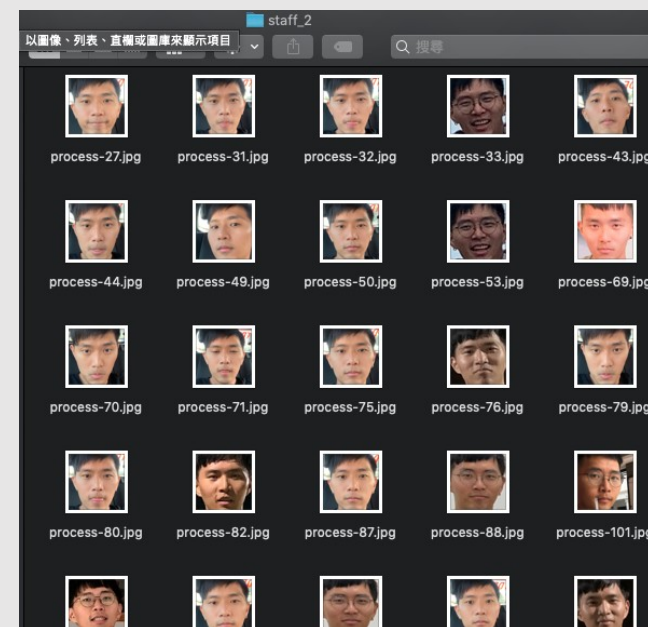
- Boss



- Staff1



- Staff2

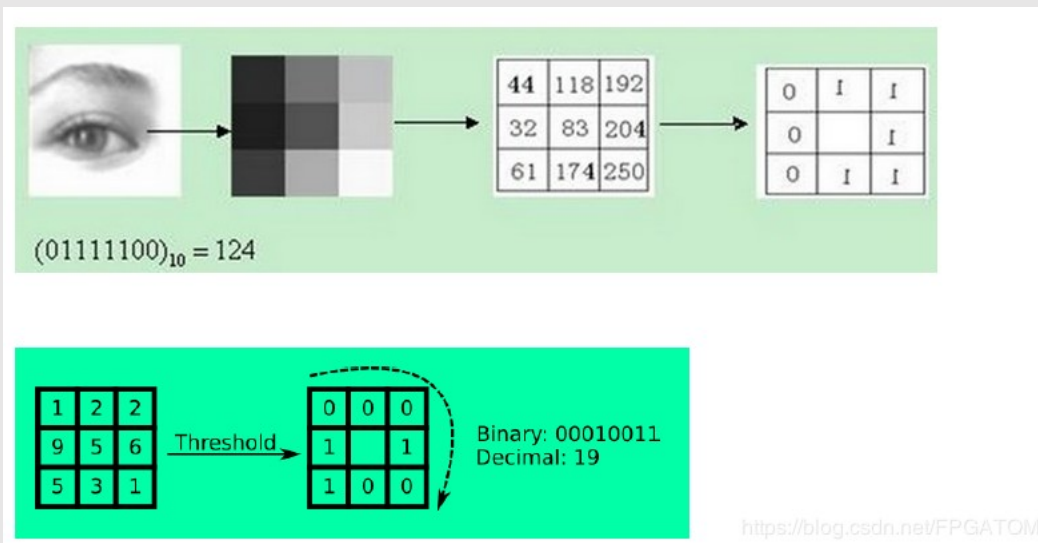


3.Training Model

- Framework

- Scikit-Learn : for training process
- OpenCV : for face classification

(LBPHFaceRecognizer : base on LBPH)



- Parameter

- face_size = (47, 62)
- batch_size = 25
- test_size = 0.25

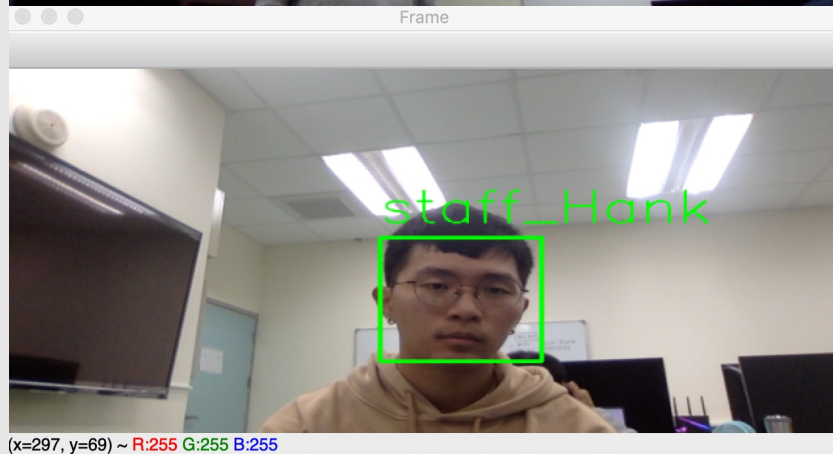
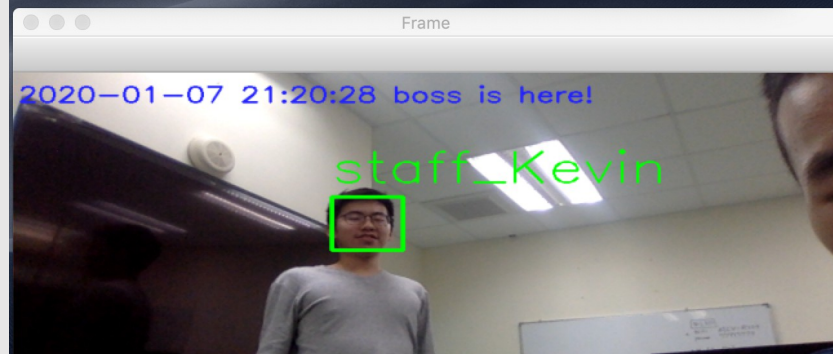
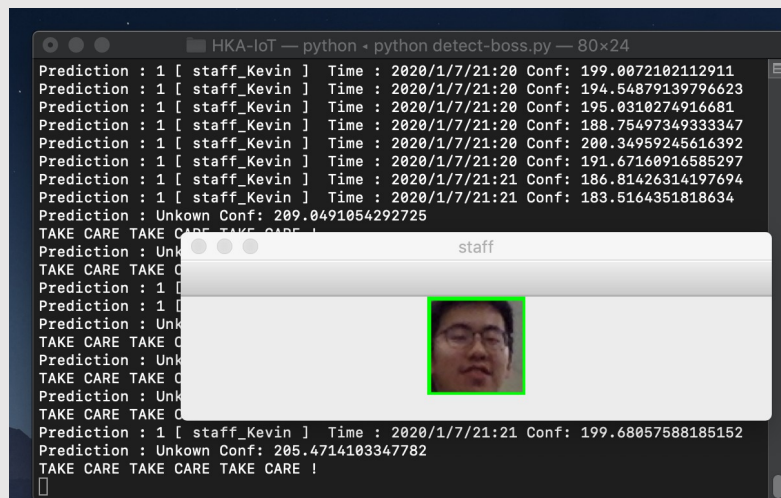
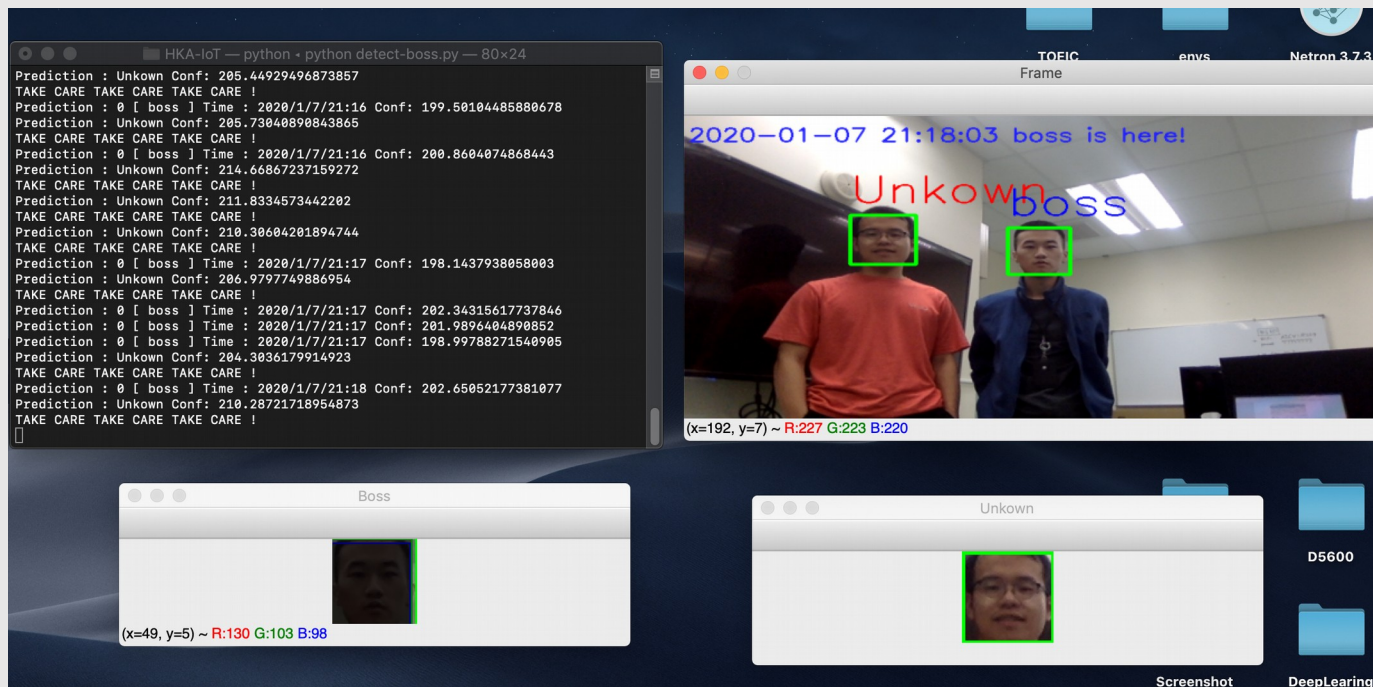
```
7 of 19
8 of 19
9 of 19
10 of 19
11 of 19
12 of 19
13 of 19
14 of 19
15 of 19
16 of 19
17 of 19
18 of 19
```

	precision	recall	f1-score	support
boss	1.00	0.71	0.83	7
staff_1	0.75	1.00	0.86	6
staff_2	1.00	1.00	1.00	6
accuracy			0.89	19
macro avg	0.92	0.90	0.90	19
weighted avg	0.92	0.89	0.89	19

Exporting model...

4. Testing

- Demo :
 - 1) Detection
 - 2) Time



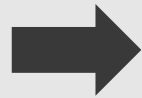
IoT Talk & Line Bot



Name



Time

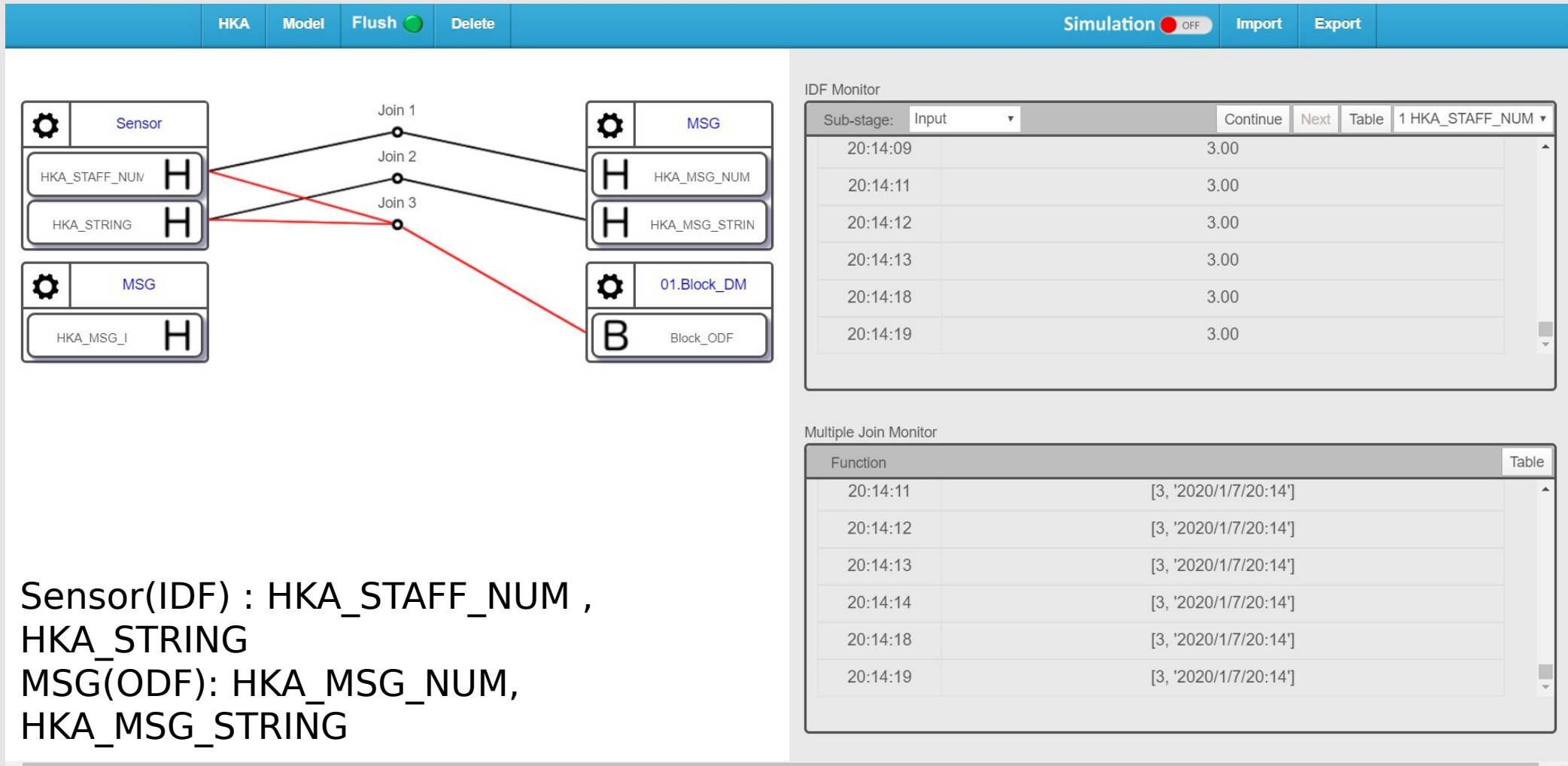


IoT Talk



Line Bot

- Output to : IoTalk & Blockchain



Other Team's ODF: Block ODF

5.IoTTalk

01.Block_DM

8000-ea252bbb-4cc...

Block_IDF

Send

Block_IDF

3,2020/1/7/20:12

Private Key	5KQwrPbwdL6PhXujxW37FSSQZ1JiwsST4cqQzDeyXtP79zkvFD3
User	bob
Reply To	0
Content	

Post

Messages:

id	reply_to	user	content
1000000026	0	bob	1,2020/1/7/20:12
1000000025	0	bob	3,2020/1/7/20:12
1000000024	0	bob	1,2020/1/7/20:12
1000000023	0	bob	1,2020/1/7/20:12
1000000022	0	bob	2,2020/1/7/20:11
1000000021	0	bob	0,2020/1/7/20:11
1000000020	0	bob	3,2020/1/7/20:11
1000000019	0	bob	0,2020/1/7/20:11
1000000017	0	bob	3
1000000016	0	bob	3
1000000015	0	bob	3
1000000014	0	bob	1
1000000013	0	bob	1
1000000012	0	bob	1
1000000011	0	bob	1
1000000010	0	bob	1
1000000009	0	bob	1
1000000008	0	bob	1
1000000007	0	bob	1
1000000006	0	bob	1
1000000005	0	bob	1
1000000004	0	bob	1
1000000003	0	bob	3
1000000002	0	bob	0
1000000001	0	bob	1
1000000000	0	bob	3

Simulation OFF Import Export

IDF Monitor

Sub-stage:	Input	Continue	Next	Table	1 HKA_STAFF_NUM
20:12:39		3.00			
20:12:40		1.00			
20:12:43		0.00			
20:12:46		1.00			
20:12:49		3.00			
20:12:50		3.00			

Multiple Join Monitor

Function	Table
20:12:39	[3, '2020/1/7/20:12']
20:12:41	[1, '2020/1/7/20:12']
20:12:43	[0, '2020/1/7/20:12']
20:12:46	[1, '2020/1/7/20:12']
20:12:49	[3, '2020/1/7/20:12']
20:12:50	[3, '2020/1/7/20:12']

6.LineBOT



7.Cooperation

- Face Detection : 周承翰 楊承翰
- IoTtalk (Line Bot) : 黃俊凱

Thanks