



电子科技大学  
格拉斯哥学院  
Glasgow College, UESTC

## Logbook

From: 30/10/2021 To: 7/1/2022

| Month    | List the main activities (only few words per activity)   | Interaction with the supervisor |  |                            | Any other form of supervisory interaction (second supervisor, industry, fellows etc.)                  |
|----------|--|---------------------------------|--|----------------------------|--|
|          |  | Number of meetings              | Mode of meeting (face- to-face, online e.g., Skype, WeChat etc.) | Number of emails exchanged |  |
| 2021.11. | 1. Learning the theory of YOLOv5.<br>2. Collecting the data set and label.<br>3. Finding the open-source code on github. | 2                               | Email and face-to-face   | 4                          | Work with another student who did the similar project with me Yuhua Nie, and discussed about the task. |
| 2021.12. | 1. Training the model and get the weight value.<br>2. Testing the effect and obtaining the first version of the model.   | 2                               | Email and WeChat   | 3                          | Discussed about the model effect with a postgraduate, and got some advice from her.                    |
| 2022.01. | 1. Interim report writing<br>1. Deciding the work to be done in the next stage.  | 1                               | Email  | 2                          |  |



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## Logbook 2

2021. 11. 5. I searched two relating references about the face detecting network, and they concerned YOLOv5 and ~~Fast R-CNN~~ Fast R-CNN are the ~~two~~ most two commonly network ~~used~~ used in this area. Compared with the performance of those two networks, I decided to use YOLOv5, which can have better ~~in~~ performance in real-time objects detection.

2021. 11. 15. I contact with the prof. Qi, and decided to <sup>collect</sup> ~~collected~~ the data set by myself instead of download the public data set online.

2021. 11. 20. I collected 1000 photos, most of them are my classmates, teachers, friends, ~~family~~ family members or other people related to me. After that I used ~~Label~~ Labeling tool to mark the faces in the ~~xx~~ photos manually. The whole work cost me 5 hours.

2021. 11. 25. I find a public ~~source~~ source code to help me save the data of my ~~now~~ labelling and transfer the file format to txt, which is adapt to the python. I have already finished the preparation for the model training so far.



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2021.12.3. I decided to start training, ~~however~~ however, the system continually warned me that my computer lack of some deep learning environment, but I tried for nearly a night, and the problem ~~is~~ is still unresolved.

2021.12.5. I contact with a postgraduate, and after her advice, I successfully configured the environment required for training. Then I found the ~~code~~ code for YOLO V5 S5.0 on the github, and start training.

2021.12.6. The ~~training~~ computer trained for more than 11 hours, and finally the training precision and recall rate is approach 1, which seems the effect is well.

2021.12.15. I used this model to do some tests, and found that although sometimes it ~~may~~ would make some errors, it ~~had~~ <sup>has</sup> already achieved the fundamental requirement of this project.

2021.12.20. I present~~ed~~ my results to prof. Qi and the postgraduate, and received some feedback, I still need to improve the precision of the model.