**Chengdu University of Technology Oxford Brookes College**

**Project Module (CHC 6096)**

**Weekly Report Sheet - 2024/2025 Academic Year**

|  |  |
| --- | --- |
| STUDENT NAME: | Jane |
| STUDENT NUMBER: | 202118010402 |
| SUPERVISOR NAME: | Irfan Ullah |
| WEEK NUMBER | 4 |
| DATE: | 2024/11/11 - 2024/11/17 |
| **Action plan for the current week:**   1. The insufficiency of the proposal was found in the group meeting, and a preliminary proposal defense was made. 2. The code of the YOLOv5 algorithm was downloaded to learn the meaning of the code. 3. Leaning employs data augmentation to increase the amount of image data. | |
| **Challenges and issues encountered in the week:**   1. Need to understand how data sets are processed and classified 2. Learn the method of data preprocessing. | |
| **Action plan for the next week:**   1. Improve the proposal report according to the teacher's suggestion. 2. Data preprocessing: Continue to learn the data preprocessing methods and continue to convert the attempted image data into an acceptable model format, and normalize to make the input to the neural network. 3. Data set partition:  * To divide the data set into the training set, the validation set, and the test set. Tools were used to label the fire area in the image and generate the training data set. * The training set is used to learn the model parameters, the validation set is used to adjust the hyperparameters and monitor the model performance, and the test set is used to evaluate the model accuracy.  1. Build the model：  * From the existing CNN models, the YOLOv5 model was selected for improvement. * Continue to learn the code composition of the YOLOv5 algorithm. | |
| **Supervisor Feedback:** | |