Step 1: First, go to the preprocessing folder located in the codes folder. Navigate to the `main.m` file.

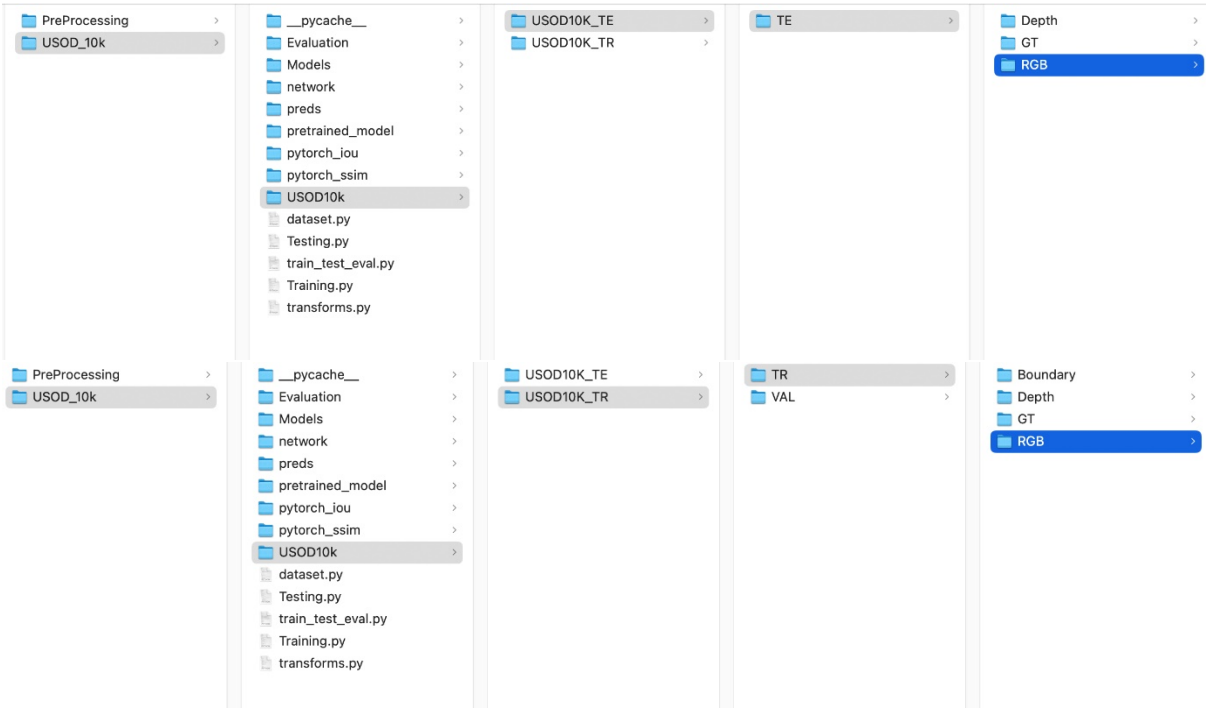
Step 2: Modify the directories for your input RGB images that require preprocessing, such as color fusion and enhancement.

Step 3: Save the enhanced images in the output directory specified in `main.m`.

Step 4: Store the outputs as required for the USOD code, as illustrated below.

```
% Set input and output directories
inputFolder = '/Users/praneethreddy/Downloads/USOD10k/USOD10k/USOD10K_TE/TE/RGB';
outputFolder = '/Users/praneethreddy/Downloads/Dl/output_te';
```

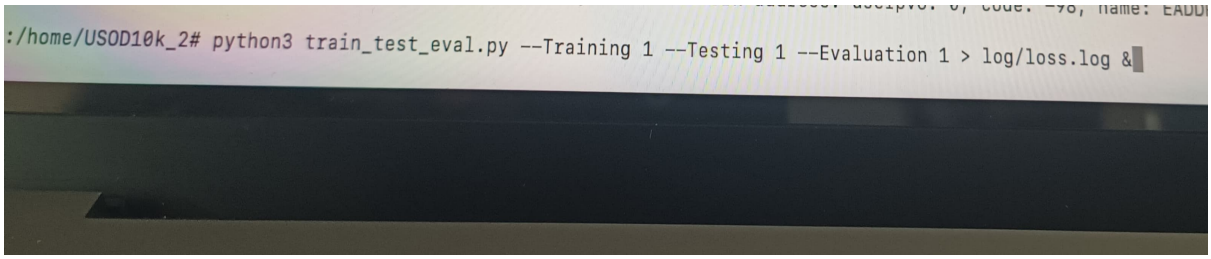
Step 5: Below are the RGB directories for test and train datasets, respectively.



Step 6: Navigate to the directory containing `train_test_eval.py`. Open it and update the paths to your stored pretrained model, trainset, testset, and other required files.

Step 7: Once all directories and requirements for training, testing, and evaluation are set up, run the following command:

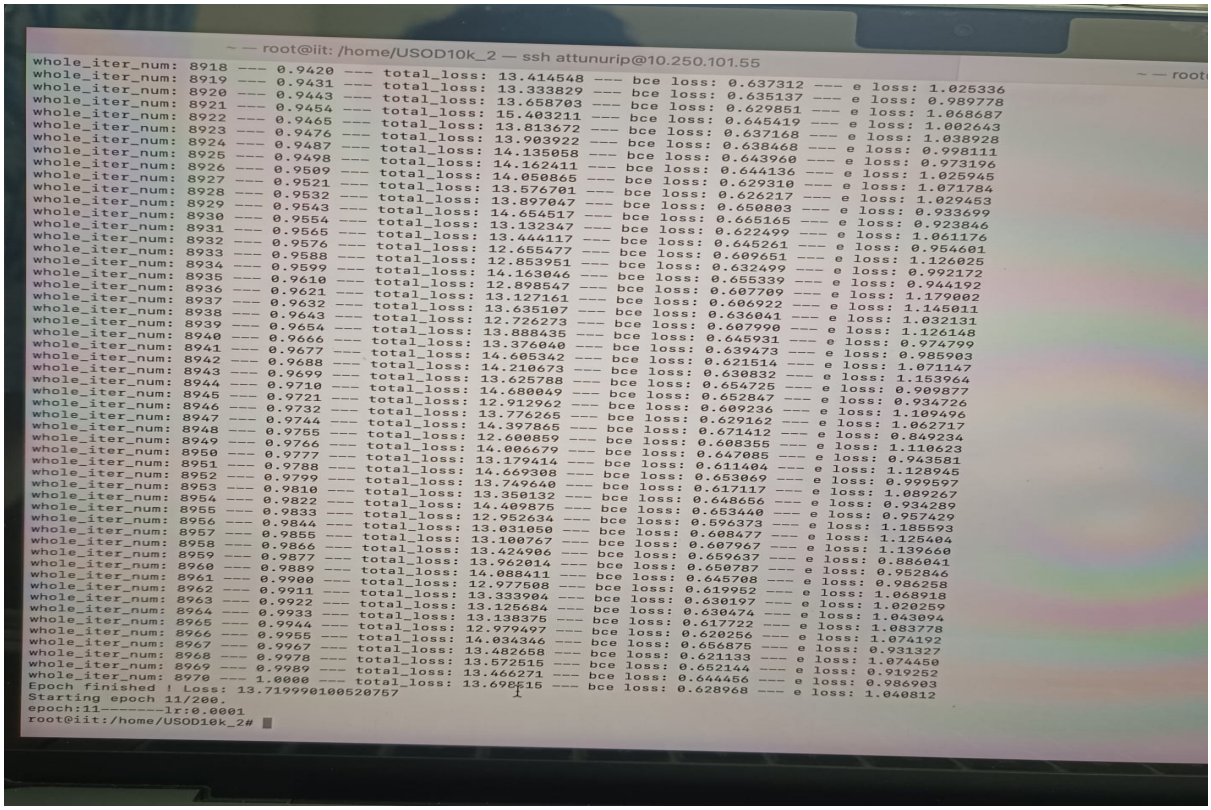
python3 train_test_eval.py --Training 1 --Testing 1 --Evaluation 1 > log/loss.log &



Step 8: Afterward, you will observe epochs running, as shown below.

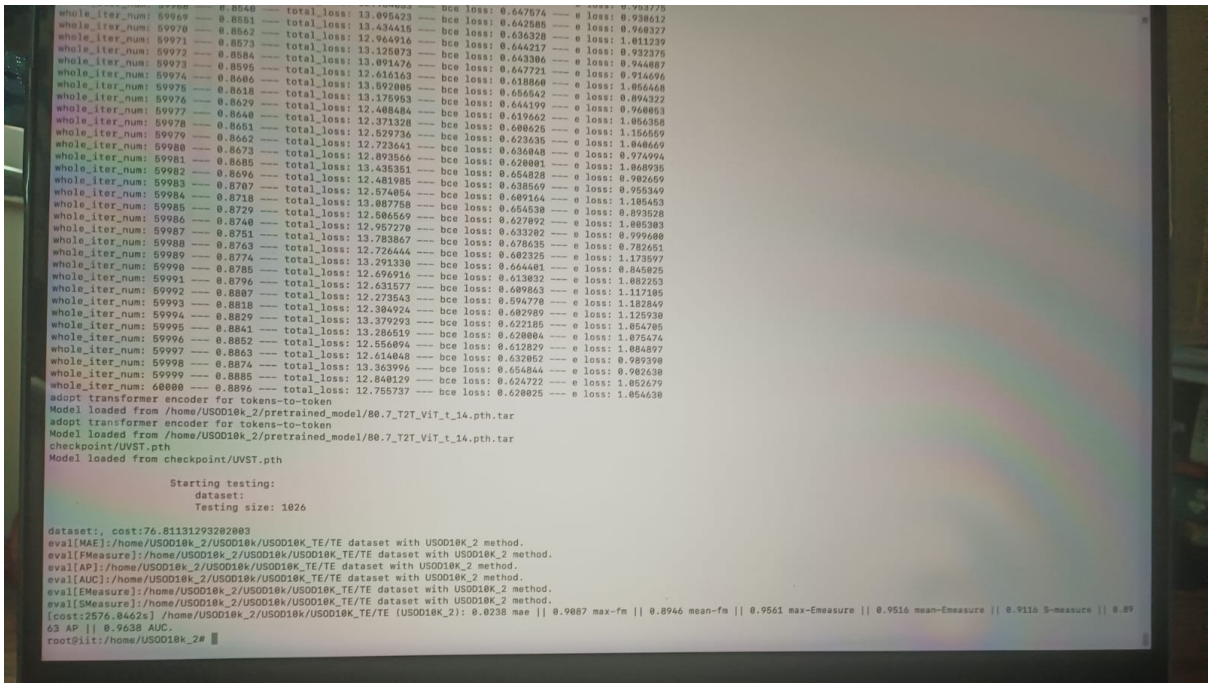
Step 9: To check the last 300 lines of the log, use the following command:

tail -f -n 300 log/loss.log

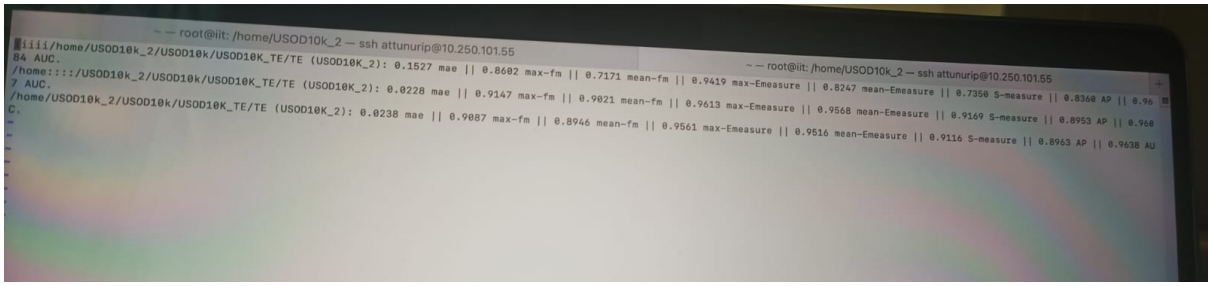


Step 10: After 200 epochs, the testing procedure begins, as seen below.

Step 11: At the 60,000th iteration, a checkpoint will be saved as `UVST.pth`.



Step 12: Evaluation metrics will be available in `result.txt`. Below are attached results for the model.



Step 13: In the zip file `30_dl_code`, I have included preprocessing and `USOD_10k` code. Preprocessing comprises color enhancement Matlab code, while `USOD_10k` contains datasets, pretrained models, and Python files for evaluation, testing, and training.