

This file contains details for the evaluators for validation of the models and about the structure and contents of the ipynb files.

The following notebooks contain the code and output for training and validation done by me. **At the end of the notebooks, I have also added cells with code for the evaluators to load the model and do validation.** While doing this, **kindly change the dataset path (to your validation data) and also the trained model path (to the models I have provided).** I have mentioned this in the corresponding cell's line of code also for easy identification.

WBC without additional info:

Notebook for plain WBC model without additional info: sub-folder 'notebooks/wbc plain without additional info'

WBC_1_plain.ipynb, WBC_10_plain.ipynb, WBC_50_plain.ipynb, WBC_100_plain.ipynb.

Kindly refer to the above notebooks for validation of WBC without additional info

Corresponding trained models are: sub-folder 'models/wbc plain without additional info'

my_wbc_1_plain_model.pth, my_wbc_10_plain_model.pth, my_wbc_50_plain_model.pth,
my_wbc_100_plain_model.pth

WBC with additional info:

I then trained WBC with masks and saved those models. Sub-folder 'models/wbc with masks (intermediary step)'

my_best_my_wbc_1_model.pth, my_best_my_wbc_10_model.pth, my_best_my_wbc_50_model.pth,
my_best_my_wbc_100_model.pth

The code would be present in the sub-folder 'notebooks/wbc with masks (intermediary step)'

WBC_1_with_mask.ipynb, WBC_10_with_mask.ipynb, WBC_50_with_mask.ipynb, WBC_100_with_mask.ipynb

These models however are not the final models for WBC with additional info (masks and pre-training). They are an **intermediary step** for the final WBC with additional info

I used the above four WBC models (my_best_my_wbc_models that are trained with masks) to create an ensemble model that would combine pRCC, cam-16 and WBC (trained with masks).

The final combined ensemble models would use pRCC model, cam-16 model, and the corresponding WBC trained with mask model. Sub-folder 'notebooks/wbc with additional info (mask and pretraining)'

WBC_1_ensemble_with_masks_and_pretraining.ipynb

WBC_10_ensemble_with_masks_and_pretraining.ipynb

WBC_50_ensemble_with_masks_and_pretraining.ipynb

WBC_100_ensemble_with_masks_and_pretraining.ipynb.

Kindly refer to the above four notebooks for validation of WBC with additional info

The final combined ensemble models: sub-folder 'models/ wbc with additional info (masks and pretraining)'

my_weighted_combined_wbc_1.pth, my_weighted_combined_wbc_10.pth, my_weighted_combined_wbc_50.pth,
my_weighted_combined_wbc_100.pth

These would be the final models for WBC with additional info (masks and pre-training)

So in total, I have provided 14 ipynb notebooks – 1 for pRCC, 1 for cam-16, **4 for WBC without additional info**, 4 for WBC improved with masks (intermediary step), **4 for WBC with additional info (masks and pre-training).**

And I have provided 14 corresponding models also.

The WBC_with_masks notebooks and my_best_my_wbc_models only serve as an intermediary step for the final WBC with additional info (masks and pre-training).