



WRS weights tests - old

Tags	Emo Old
Date	@22/07/2022
Status	Done

Conclusion

With division method (1.0 / samples_by_class) model performs the best

Tests no. 1 and 3 were run in June and there have been script changes since then. I tried to find out what caused this but didn't manage to, I looked through all commits from 17.06. - 23.07.2022.

No	Method	Eval acc
1	Without WRS (17.06.2022.)	58.0%
2	Repeated without WRS (23.07.2022.)	54.9%
3	Division method (around 17.06.2022.)	57.0%
4	Repeated division method (23.07.2022.)	55.5%
5	Division method (From Ēvalds)	53.8%
6	Sum method	54.0%

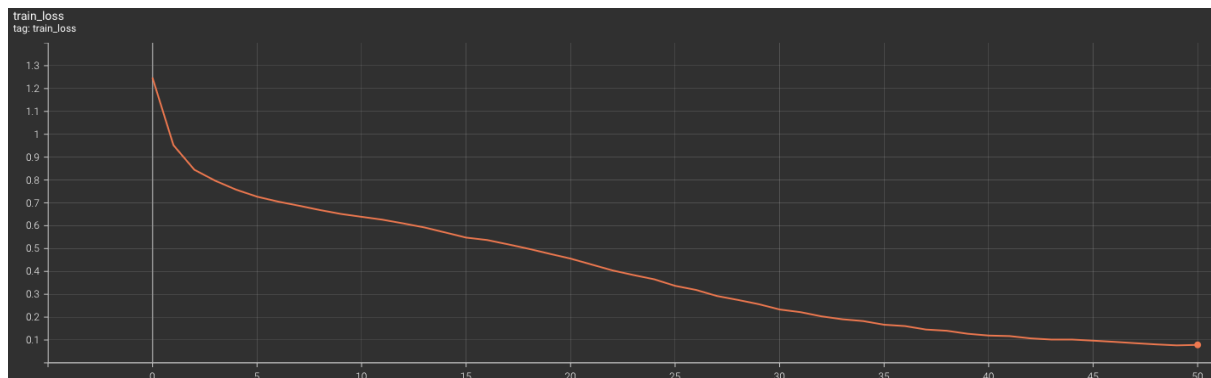
1. Without WRS (17.06.2022)

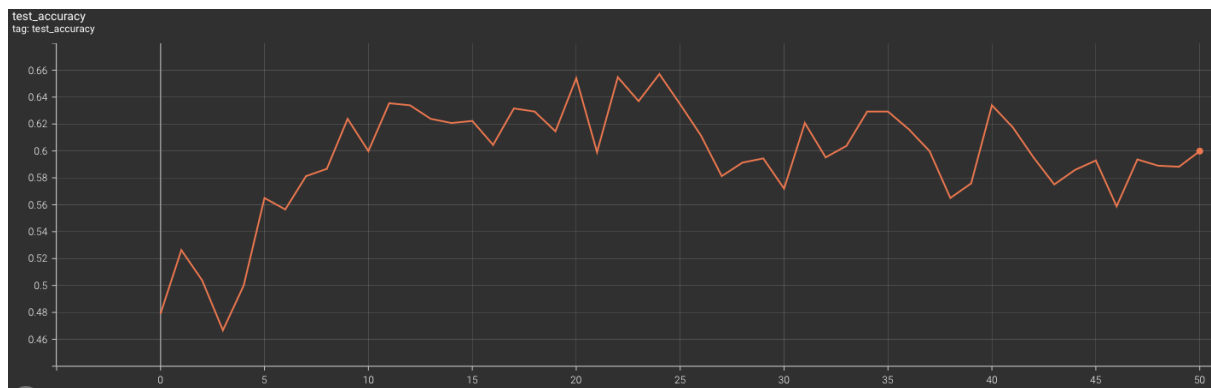
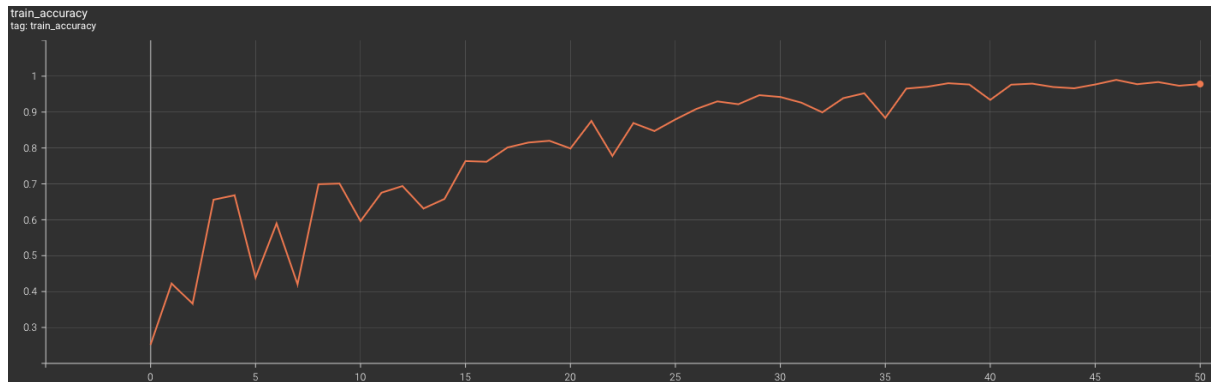
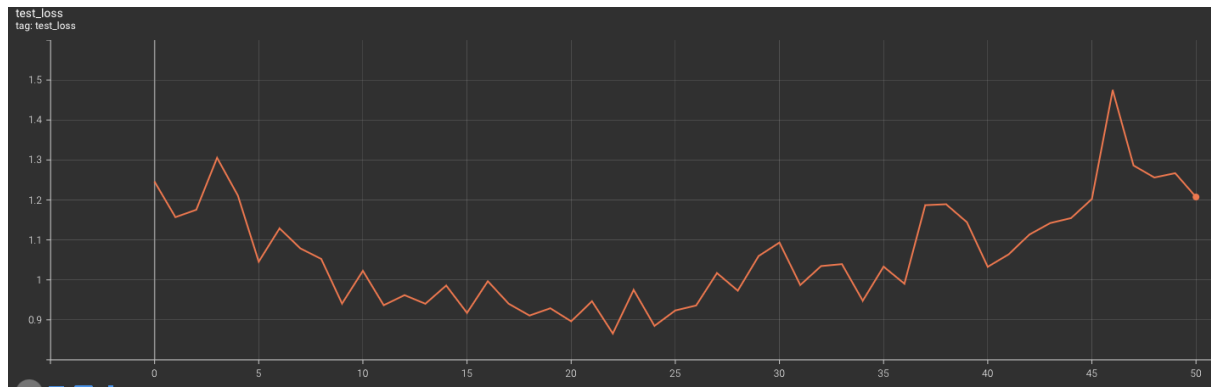
best acc: 58.0% on eval

2. Repeated without WRS (23.07.2022)

best acc: 54.9%

id	eval_accuracy	eval_f1
1	0.548686266	0.548686266





3. Division method

1.0 / samples_by_class

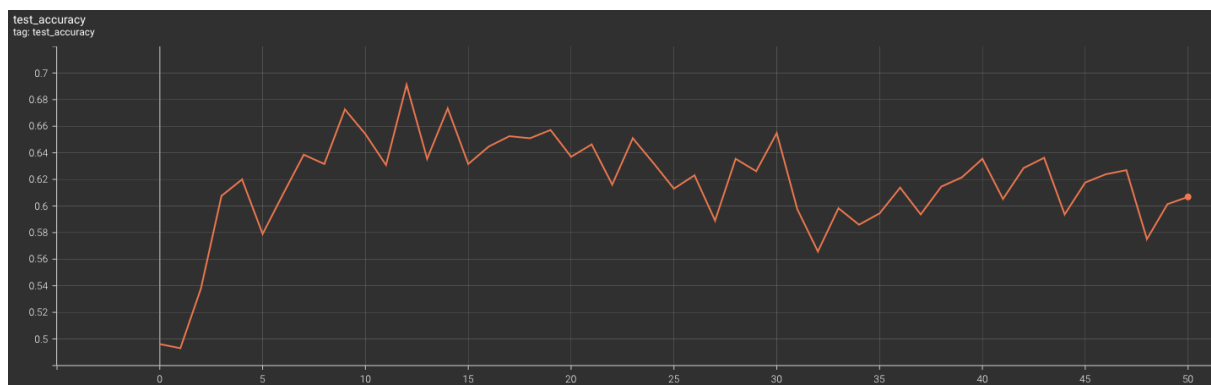
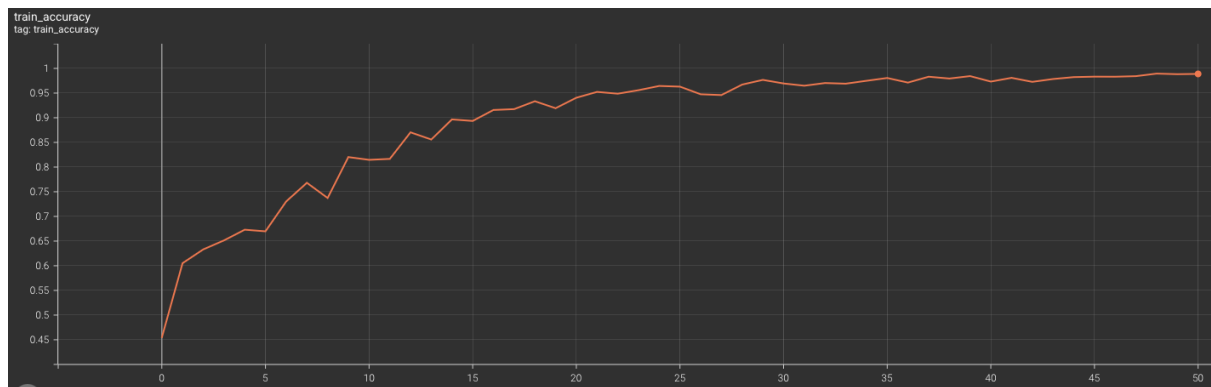
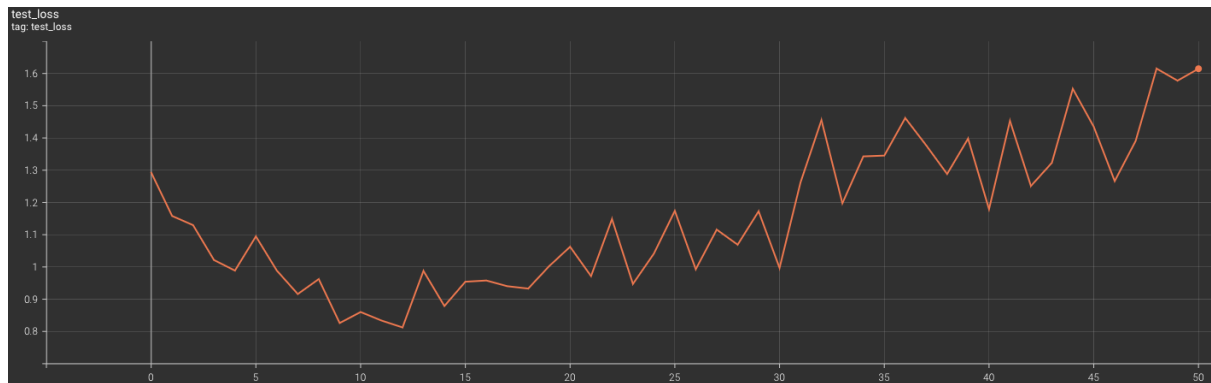
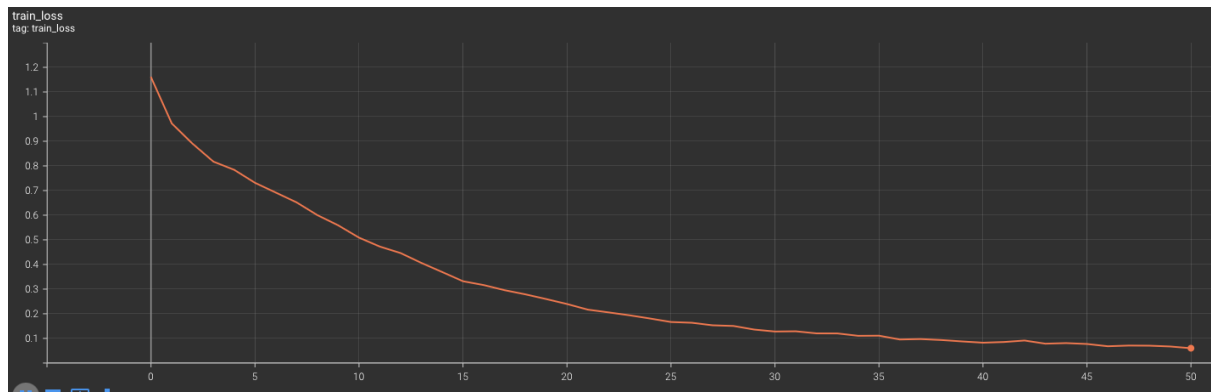
best acc: 57.0% on eval

3. Repeated division method

1.0 / samples_by_class

best acc: 55.5% on eval

id	eval_accuracy	eval_f1
1	0.554868639	0.55486864

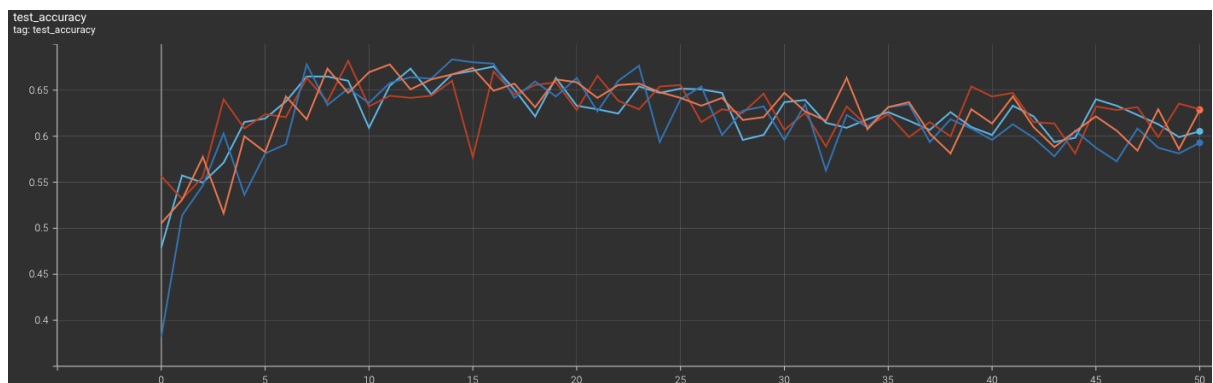
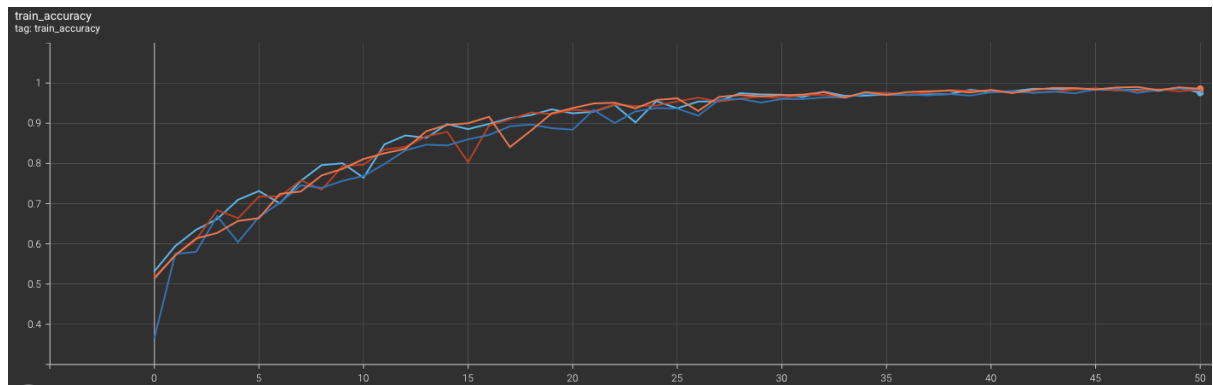
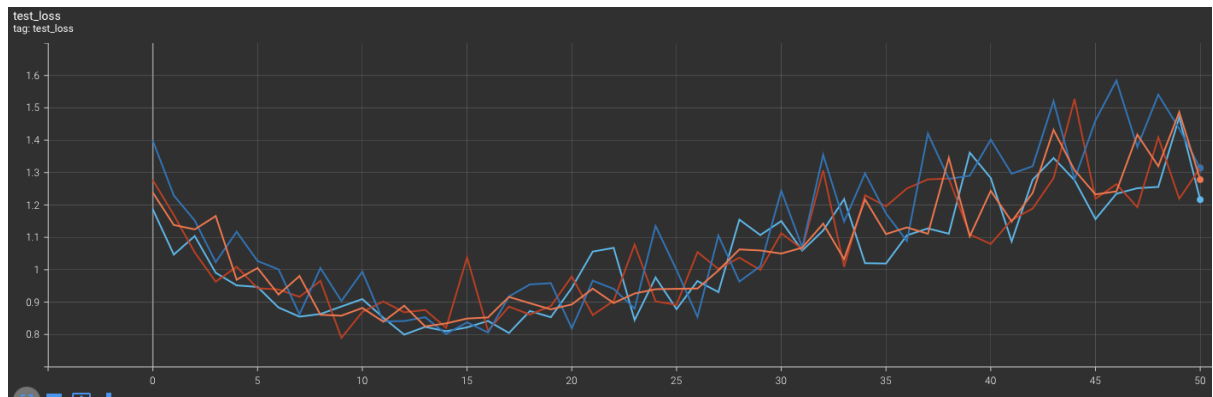
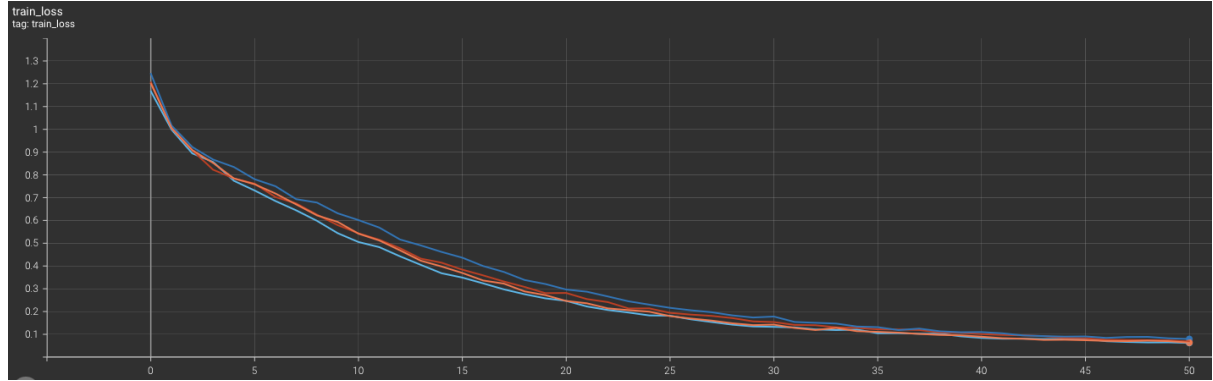


Division method (from Ēvalds)

$(\alpha / \text{samples_by_class}) * \text{total_samples}$

best acc: 53.8% on eval

id	alpha	eval_accuracy	eval_f1
1	0.5	0.523956716	0.523956716
2	1	0.514683127	0.514683127
3	10	0.537867069	0.537867069
4	100	0.499227196	0.499227196



Shell script (trained using best model without WRS params on vea-165):

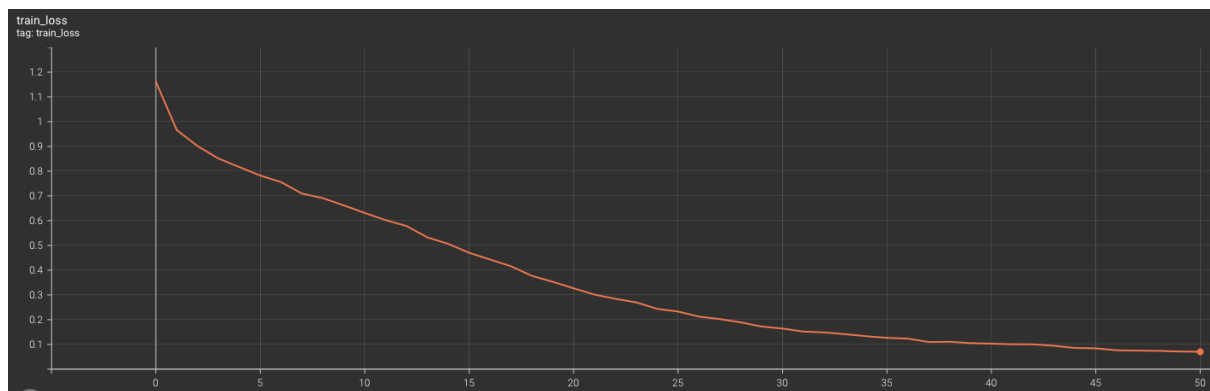
```
#!/bin/sh -v
cd /home/malcovadmin/Documents/asya-audio-emo-model-v4

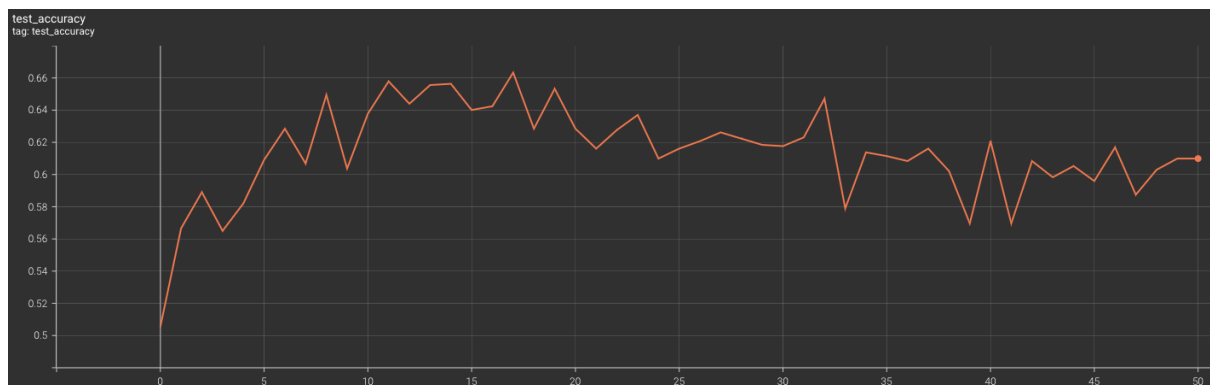
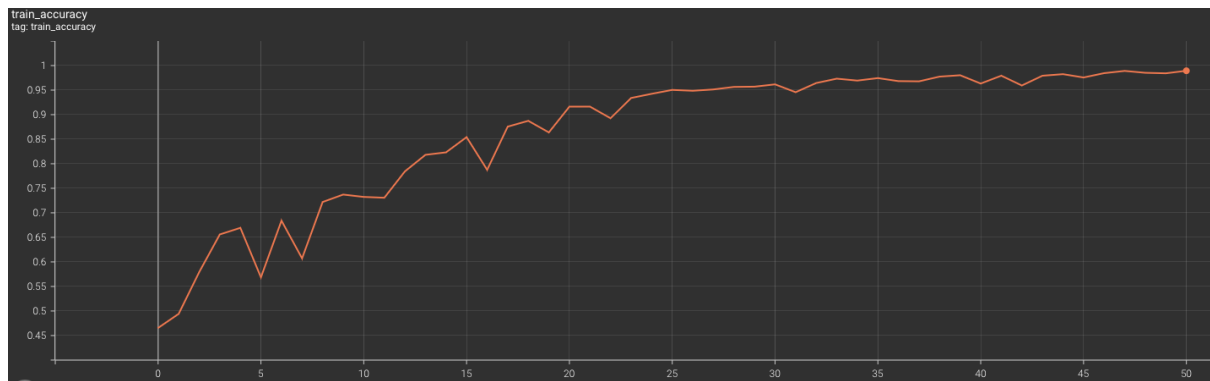
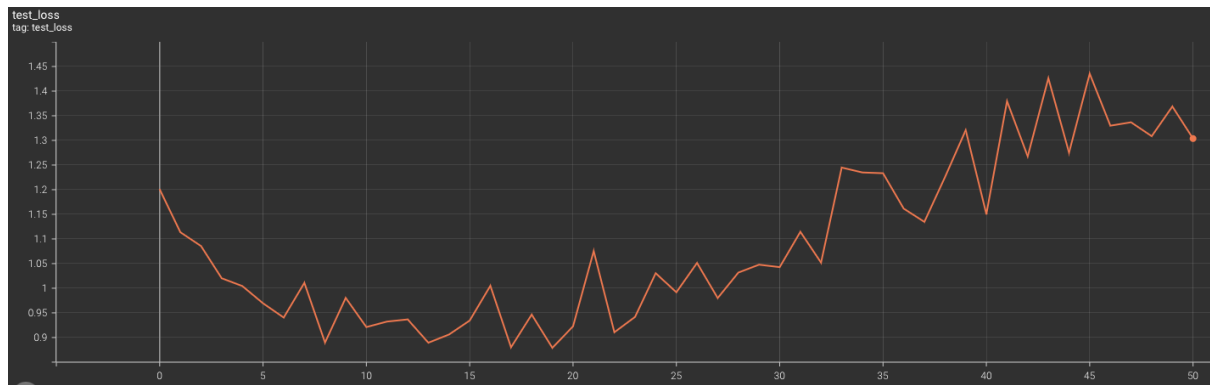
python taskgen.py \
-discord_notify_taskgen True \
-is_force_start False \
-num_tasks_in_parallel 2 \
-is_single_cuda_device True \
-num_cuda_devices_per_task 1 \
-script main_classification_v1.py \
-sequence_name 4_class_classification_WRS_tests \
-model model_2D_classification_CNN_v1 \
-datasource datasource_v1 \
-path_train_emo /home/malcovadmin/Documents/emo_audio_relabelled_threshold_2_test_train_split_other_class/train_dataset.json \
-path_test_emo /home/malcovadmin/Documents/emo_audio_relabelled_threshold_2_test_train_split_other_class/test_dataset.json \
-path_validation /home/malcovadmin/Documents/emo_relabeled_data_raw_improv_team_2021_4sec_v1 \
-downsample_input false \
-alpha 0.5 1 10 100 \
-data_scaling_type standardization \
-each_augment_proba 0.5 \
-is_shift_augmentation True \
-is_bandmask_augmentation True \
-is_revecho_augmentation True \
-normalization_module none \
-apply_normalization True \
-normalization_scope sample \
-encoder_ch_out 128 \
-resample 2 \
-spectrogram_type melspectrogram \
-n_fft 1024 \
-win_length 1024 \
-hop_length 128 \
-n_mels 128 \
-n_mfcc 64 \
-epochs 50 \
-batch_size 256 \
-learning_rate 1e-4 \
-save_models True \
-inference_gender any \
-early_stopping_patience 10 \
-early_stopping_delta_percent 1e-3
```

Sum method

$(1 - \text{samples_by_class} / \text{total_samples})$

best acc: 54.0%





Shell script (trained using best model without WRS params on vea-165):

```
#!/bin/sh -v
cd /home/malcovadmin/Documents/asya-audio-emo-model-v4

python taskgen.py \
-discord_notify_taskgen True \
-is_force_start False \
-num_tasks_in_parallel 2 \
-is_single_cuda_device True \
-num_cuda_devices_per_task 1 \
-script main_classification_v1.py \
-sequence_name 4_class_classification_WRS_tests \
-model model_2D_classification_CNN_v1 \
-datasource datasource_v1 \
-path_train_emo /home/malcovadmin/Documents/emo_audio_relabelled_threshold_2_test_train_split_other_class/train_dataset.json \
-path_test_emo /home/malcovadmin/Documents/emo_audio_relabelled_threshold_2_test_train_split_other_class/test_dataset.json \
-path_validation /home/malcovadmin/Documents/emo_relabeled_data_raw_improv_team_2021_4sec_v1 \
-downsample_input false \
-data_scaling_type standardization \
-each_augment_proba 0.5 \
-is_shift_augmentation True \
-is_bandmask_augmentation True \
-is_revecho_augmentation True \
```

```
-normalization_module none \  
-apply_normalization True \  
-normalization_scope sample \  
-encoder_ch_out 128 \  
-resample 2 \  
-spectrogram_type melspectrogram \  
-n_fft 1024 \  
-win_length 1024 \  
-hop_length 128 \  
-n_mels 128 \  
-n_mfcc 64 \  
-epochs 50 \  
-batch_size 256 \  
-learning_rate 1e-4 \  
-save_models True \  
-inference_gender any \  
-early_stopping_patience 10 \  
-early_stopping_delta_percent 1e-3
```