



Nerona's label quality test

☰ Tags	Dataset Emo Old
📅 Date	@08/08/2022
⚡ Status	Done

Conclusions

1. Runs with Nerona's labels perform better (best acc 47.8% vs 46.4%), however they also have more emo data (2736 vs 1598 emo class samples)
2. Validating on improv datasets results higher acc for runs without downsampling to 8k and upsampling back to 16k
3. In these runs it is unclear which WRS weight calculation is the best (validation set is also not balanced)

Shell script

```
#!/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_with_nerona_runs \
-model model_2D_classification_CNN_v1 \
-datasource datasource_v1 \
-path_train_emo /home/malcovadmin/Documents/emo_audio_PP_threshold_3_and_other_from_relabelled_threshold_3/train_dataset.json \
-path_test_emo /home/malcovadmin/Documents/emo_audio_PP_threshold_3_and_other_from_relabelled_threshold_3/test_dataset.json \
-path_validation /home/malcovadmin/Documents/emo_relabeled_data_raw_improv_team_2021_4sec_v1 \
-downsample_input false true \
-method_division division_evals sum max \
-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

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-num_cuda_devices_per_task 1 \
-script main_classification_v1.py \
-sequence_name 4_class_classification_without_nerona_runs \
-model model_2D_classification_CNN_v1 \
-datasource datasource_v1 \
```

```

-path_train_emo /home/malcovadmin/Documents/emo_audio_PP_threshold_3_and_other_from_relabelled_threshold_3_without_nerona/train_datase
-path_test_emo /home/malcovadmin/Documents/emo_audio_PP_threshold_3_and_other_from_relabelled_threshold_3_without_nerona/test_dataset.
-path_validation /home/malcovadmin/Documents/emo_relabeled_data_raw_improv_team_2021_4sec_v1 \
-downsample_input false true \
-method division division_evals sum max \
-data_scaling_type standardization \
-each_augment_proba 0.5 \
-is_shift_augmentation True \
-is_bandmask_augmentation True \
-is_revecho_augmentation True \
-normalization_module none \
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-normalization_scope sample \
-encoder_ch_out 128 \
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-epochs 50 \
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-early_stopping_delta_percent 1e-3

```

Runs without Nerona's labels

id	downsample_input	method	eval_accuracy	eval_f1
1	FALSE	division	0.464	0.464
2	FALSE	division_evals	0.461	0.461
3	FALSE	sum	0.459	0.459
4	FALSE	max	0.448	0.448
7	TRUE	sum	0.400	0.400
5	TRUE	division	0.394	0.394
8	TRUE	max	0.377	0.377
6	TRUE	division_evals	0.372	0.372

Class counts:

Train dataset:

happiness: 675

anger: 364

sadness: 559

other: 6970

Test dataset:

happiness: 68

anger: 68

sadness: 68

other: 68

Runs with Nerona's labels

id	downsample_input	method	eval_accuracy	eval_f1
4	FALSE	max	0.478	0.478
1	FALSE	division	0.448	0.448
2	FALSE	division_evals	0.448	0.448
3	FALSE	sum	0.433	0.433
8	TRUE	max	0.393	0.393
7	TRUE	sum	0.380	0.380
6	TRUE	division_evals	0.372	0.372
5	TRUE	division	0.312	0.312

Class counts:

Train dataset:

happiness: 1076

anger: 566

sadness: 1094
other: 6970

Test dataset:
happiness: 101
anger: 101
sadness: 101
other: 101