How to run:

# run test on my umx, output is ./starlight\_open-unmix

umx /home/user\_7065/project\_B/music\_test/wav/Starlight.wav --model /home/user\_7065/project\_B/open-unmix-main/scripts/open-unmix --targets vocals --residual [string]::Empty

# run test on my umx, output is ./starlight\_open-unmix-modified

umx /home/user\_7065/project\_B/music\_test/starlight\_wav/Starlight.wav --model /home/user\_7065/project\_B/open-unmix-main\_modified/scripts/open-unmix-modified-16-6-6 --targets vocals --residual [string]::Empty

# train on dataset datasets that has test and train folder, target vocals only and the dataset is made of .wav files

python train.py --root /home/user\_7065/project\_B/MUSDB\_wav --target vocals --is-wav

# train with checkpoint

python train.py --root /home/user\_7065/project\_B/MUSDB\_wav --checkpoint /home/user\_7065/project\_B/open-unmix-main/scripts/open-unmix --target vocals --is-wav

umx /home/user\_7065/project\_B/music\_test/train\_wav/mixture.wav --model /home/user\_7065/project\_B/open-unmix-main/scripts/open-unmix --targets vocals --residual [string]::Empty

# problem with dataset- expects 4 detailed channels , so preprocess like they want

# <https://github.com/sigsep/sigsep-mus-db#using-wav-files-optional>

# running the terminal detached

tmux

# exit with keeping the session running: ctrl+B then D

# session list

tmux ls

# to go to the session i want

tmux a -t #Num\_of\_session

# talk to Itay if training is way too long

# check GPU

nvidia-smi

nvtop

# check CPU

htop

# 100 epochs = 40 hours

# train fix

python train.py --root /home/user\_7065/project\_B/MUSDB\_wav --checkpoint /home/user\_7065/project\_B/open-unmix-main/scripts/open-unmix --nb-workers 6 --dataset trackfolder\_fix --target-file vocals.wav --interferer-files bass.wav drums.wav other.wav --epochs 100

#unmodified: LSTM

num trainable weights: 13678592

#modified: transformer encoder 6

num trainable weights modified: 27602944 #2 times the unmodified

#modified: transformer encoder 12

num trainable weights: 46514176

num trainable weights modified: 47307265

#modified: transformer encoder 3

num trainable weights modified: 18935809

#modified: htdemucs frequency inspired:

num of weights modified: 139080894

num trainable weights modified: 139080894

## BAND SPLIT

#PREPARE DATASET

python3 prepare\_dataset.py -i /home/user\_7065/project\_B/MUSDB\_wav/ -o /home/user\_7065/project\_B/MUSDB\_bs\_short --sad-cfg-path /home/user\_7065/project\_B/BandSplitRNN-PyTorch/src/conf/sad/default.yaml --subset train --split train -t vocals

python3 prepare\_dataset.py -i /home/user\_7065/project\_B/MUSDB\_wav -o /home/user\_7065/project\_B/MUSDB\_bs\_short -t vocals --sad-cfg-path /home/user\_7065/project\_B/band\_split\_main/src/conf/sad/default.yaml

#run example

python3 inference.py -i /home/user\_7065/project\_B/music\_test/Starlight.mp3 -o /home/user\_7065/project\_B/music\_test/ -t vocals -c /home/user\_7065/project\_B/band\_split\_main/src/saved\_models/vocals/vocals.ckpt -d cuda