MIR - HW0 - README

彭麒任

Requirements.txt

run ***pip install -r requirements.txt***

Task 1

- All the file is under folder ***1***
- file looks like this
    - ***1***
        - ***1.ipynb***
- Put the path of the traning data folder in the beginning of the ***1.ipynb*** file
- Then run the file, it will produce the result

Task 2

- All the files are under folder *2*
- files looks like this
  - *2*
    - *2_inference.ipynb*
    - *2_training.ipynb*
    - *knn_model.pkl*
    - *scaler_mfcc.pkl*
    - *scaler_spectral_contrast.pkl*

Task 2 - Training

- Put the path of the traning data folder in the beginning of the ***2_training.ipynb*** file
- Then run the file, it will produce the result (3 ***.pkl*** file)
  - ***knn_model.pkl*** is the model
  - ***scaler_mfcc.pkl*** is the scaler for normalize test set
  - ***scaler_spectral_contrast.pkl*** is the scaler for normalize test set

Task 2 - Inference

- Put the path of the testing data folder in the beginning of the ***2_inference.ipynb*** file
- Then run the file, it will produce the result, the Top 1 accuracy and the confusion matrix

Task 3

- All the files are under folder *3*
- files looks like this
  - *3*
    - *3_train_mel.ipynb*
    - *3_test_mel.ipynb*
    - *3_train_mel_log.ipynb*
    - *3_test_mel_log.ipynb*
    - *label_encoder_mel_log.pkl*
    - *label_encoder_mel.pkl*
    - *mel_model_log.pth*
    - *mel_model.pth*

Task 3 - Training - Mel Spectrogram, without log scaling

- Put the path of the traning data folder in the beginning of the ***3_train_mel.ipynb*** file
- Then run the file, it will produce the result (2 ***.pkl*** file)
  - ***mel_model.pth*** is the model
  - ***label_encoder_mel.pkl*** is the encoder for the label

Task 3 - Inference - Mel Spectrogram, without log scaling

- Put the path of the testing data folder in the beginning of the ***3_test_mel.ipynb*** file
- Then run the file, it will produce the result, the Top 1 accuracy, Top 3 accuracy and the confusion matrix

Task 3 - Training - Mel Spectrogram, with log scaling

- Put the path of the traning data folder in the beginning of the ***3_train_mel_log.ipynb*** file
- Then run the file, it will produce the result (2 ***.pkl*** file)
  - ***mel_model_log.pth*** is the model
  - ***label_encoder_mel_log.pkl*** is the encoder for the label

Task 3 - Inference - Mel Spectrogram, with log scaling

- Put the path of the testing data folder in the beginning of the ***3_test_mel_log.ipynb*** file
- Then run the file, it will produce the result, the Top 1 accuracy, Top 3 accuracy and the confusion matrix