

Read me

Files

comput_motion_statistics_fast.py

Computer the motion statistics of the video, to be used in the SSL pre-task.

input_SL_orig.py

Program to input the data from the “list” of videos for the SL approach.

Returns - the training clips(16 consecutive frames), target_label(class number) and next_batch_start.

input_SSL_orig.py

Program to input the data from the “list” of videos for the SSL approach.

Returns - the training clips(16 consecutive frames), target_label(motion statistics) and next_batch_start.

model_class_det.py

contains the model(two FC layers) used over the C3D network for the SL approach.

model.py

Contains the C3D model used for implementing the SSL approach.

test_SL.py

Program to test the SL model at by loading a specific checkpoint.

You can load a specific saved model and checkpoint by changing at line number 10 and 11.

testing_ftn_full_SL.py

Program to test the SL model trained from scratch(random initialization) at a number of iterations.

You can load a specific saved model and checkpoint by changing at line number 10 and 29.

testing_ftn_SL.py

Program to test the SL model trained using pre-initialized weights at a number of iterations.

You can load a specific saved model and checkpoint by changing at line number 11 and 30.

train_full_SL.py

Program for training the SL model from scratch. **Note: Change the input video list and save path accordingly**

train_SL.py

Program for training the SL model using pre-initialized weights.

Note: Change the input video list and save path accordingly

train_SSL.py

Program for training the SSL model.

Note: Change the input video list and save path accordingly

Directories

latest_SL_new_Model

Contains the saved checkpoints of the SL model using “latest_SL_train_new.list” as the input i.e. 500 examples from each class.

SL_Model

Contains the saved checkpoints of the SL model using “list_SL.list” as the input i.e. 214 examples from each class.

SL_full_Model

Contains the saved checkpoints of the SL model using “list_SL.list” as the input i.e. 214 examples from each class, but trained from scratch (random initialization).

motion_pattern_all_new_global

Directory containing the saved checkpoints of the SSL model.