Action Recognition file:

1. “**feat_extract.py**” extracts the features of UCF101. We use “**testlist01.txt**” for splitting the video data to training and test sets.
2. Folder “UCF101 Extracted Features” contains extracted features of some of the classes in UCF101 used in our experiments.
3. Using “**transfer_distance_1.py**”, “**transfer_distance_2.py**”, “**transfer_distance_3.py**”, we calculate the transfer distance of Source1, Source2, Source3 rom the target.
4. Using “**weighted_risk_minimzation_source1.py**”, “**weighted_risk_minimzation_source2.py**”, “**weighted_risk_minimzation_source3.py**” We run weighted empirical risk minimization to find the corresponding upper bounds. The average results are saved in the files “**video_upperbound_source1_average.csv**”, “**video_upperbound_source2_average.csv**”, “**video_upperbound_source3_average.csv**”
5. Using “**video_upperbound_average.csv**” we get the upper bound using only target samples. The average results are saved in “**video_upperbound_average.csv**”.
6. The matlab files “**action_lower_bounds.m**” and “**Video_upper_bounds.m**” plot the corresponding lower and upper bounds.

Image Classification file:

One needs download the extracted features and labels of DomainNet clipart and sketch using ResNet50 network pretrained on Imagenet. Here is the link:

https://drive.google.com/file/d/1zrMVBLnFBKlCXQ3l0PudjcrIYo23zXKx/view?usp=sharing
https://drive.google.com/file/d/1pjlm8wvd4kEaGyeUFnUFiMGhzCcwxJ4b/view?usp=sharing
https://drive.google.com/file/d/1QG6CrwmhSNj7cbVdchiExbpWTo1AZyBb/view?usp=sharing
https://drive.google.com/file/d/152jqMxtW3REuZzQFInRbhVeK2yb4D90z/view?usp=sharing
https://drive.google.com/file/d/1JUfZ8zDU8uvWiwjo9_ic1IFZhZkYEP-F/view?usp=sharing
https://drive.google.com/file/d/1OYb3w0e5WTbLM7gSs-8jS7PUZWsgt_V-/view?usp=sharing
https://drive.google.com/file/d/1Ng5rsoMWzBk92CWQBdIOCINusH7e3AIy/view?usp=sharing
https://drive.google.com/file/d/1daHDFx4iMd7-JnpHTdX7oDyznjsHQ1SP/view?usp=sharing

1. Using “transfer_distance.py” we calculate the transfer distances.
   Using “**weighted_risk_minimzation.py**” We run weighted empirical risk minimization to find the corresponding upper bounds. The average results are saved in the files “**image_upperbound_source1_average.csv**”, “**image_upperbound_source2_average.csv**”, “**image_upperbound_source3_average.csv**”
2. The matlab files “**lowerboundsimage.m**” and “**upperbounds.m**” plot the corresponding lower and upper bounds.