**Manual**

1. SVM experiments can be run directly from within Weka 3.6.10 by opening the arff files and selecting the SVM-SMO classifier with default options.

For Cfs Subset Evaluator, Linear Forward Selection search method must be selected with “numusedattributes=1500” parameter.

Information Gain Attribute Evaluator must be run with default Ranker search method.

1. RBM experiments are run with Matlab 2019a student version using Tanaka’s Deep Belief Net. Source code is available at the following site:

<http://bit.ly/dnnicpr2014>

Library files from the above site must be included inside the directory of following source code files, or must be in the Environment path of Matlab.

Matlab Weka library must also be included in the Environment Path of Matlab. This library is needed to read and write arff files from within Matlab and can be download from the following link:

<https://www.mathworks.com/matlabcentral/fileexchange/21204-matlab-weka-interface>

**Matlab main source code files:**

**all\_corpus.m:** Matlab source code for EmoDB and EmoSTAR datasets experiments

**all\_corpus\_5mix1.m:** Matlab source code for 5Mix dataset experiments

**all\_corpus\_iemo1.m:** Matlab source code for IEMOCAP dataset experiments

**all\_corpus\_cfs\_ig.m:** Matlab source code for Cfs Subset Evaluator and Information Gain Attribute Selector experiments.

**all\_crosscorpus0.m:** Matlab source code for cross-corpus experiments between EmoDb and EmoSTAR.

**all\_corpus\_iemo\_cc.m**: Matlab source code for cross-corpus experiments between IEMOCAP and 5Mix datasets.

1. sVGG (small-VGG) experiments are run with Python 3.6.5, Tensorflow 1.9.0, and Keras 2.2.4 on a GPU. SVM, and RBM experiments are reproducible, sVGG experiments are stochastic.

Source code files are listed below.

cnn\_speech1d\_arff.py: Source code to run single corpus experiments.

cnn\_speech1d\_arff\_cc.py: Source code to run cross-corpus experiments.

Librosa, Matplotlib, Pandas, Plotly, Seaborn, Random, Sys, Os, Glob, sklearn.metrics, Scipy.io.arff libraries must also be installed.

**Librosa:**

pip install librosa

or

conda install -c conda-forge librosa

**Matplotlib**:

pip install matplotlib

**Pandas:**

pip install pandas

or

conda install pandas

**Plotly:**

pip install plotly

or

conda install -c plotly

**Seaborn:**

pip install seaborn

or

conda install seaborn

**Random:**

Import random as rn

**Sys:**

Import sys

**Os:**

Import os

**Glob:**

Import glob

**Sklearn.metric:**

from sklearn.metrics import accuracy\_score

from sklearn.metrics import precision\_score

from sklearn.metrics import recall\_score

from sklearn.metrics import f1\_score

from sklearn.metrics import cohen\_kappa\_score

from sklearn.metrics import roc\_auc\_score

from sklearn.metrics import confusion\_matrix

**Scipy.io.arff:**

import scipy.io as sio

from scipy.io import arff