Supplementary

Supplementary papers:
Domain adaptation: https://arxiv.org/abs/1608.06019
Visualisation: https://arxiv.org/pdf/1311.2901.pdf

Leaf dataset download link: https://www.plant-phenotyping.org/datasets-download

Musical Genre Classification, MFCC extraction code:
Music dataset:
https://github.com/mdeff/fma

```
from python_speech_features import mfcc
import scipy.io.wavfile as wav
import numpy as np

from tempfile import TemporaryFile
import os
import pickle
import random
import operator
import math
import numpy as np

directory = "__path_to_dataset__"
f= open("my.dat" ,'wb')
i=0

for folder in os.listdir(directory):
   i+=1
   if i==11 :
      break
   for file in os.listdir(directory+folder):
      (rate,sig) = wav.read(directory+folder+"/"+file)
      mfcc_feat = mfcc(sig,rate ,winlen=0.020, appendEnergy = False)
      covariance = np.cov(np.matrix.transpose(mfcc_feat))
      mean_matrix = mfcc_feat.mean(0)
      feature = (mean_matrix , covariance , i)
      pickle.dump(feature , f)

f.close()
```