Step by Step Instructions for the installation of PyAudioAnalysis

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Installation Guide for PyAudioAnalysis

1. Navigate to the installation path
2. Type “pip install -r ./requirements.txt”
3. pip install -e

Test it →

Error Found

```
>>> from pyAudioAnalysis import audioTrainTest as aT
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
  File "D:\pyAudioAnalysis\pyAudioAnalysis\audioTrainTest.py", line 10, in <module>
    from pyAudioAnalysis import MidTermFeatures as aF
  File "D:\pyAudioAnalysis\pyAudioAnalysis\MidTermFeatures.py", line 8, in <module>
    from pyAudioAnalysis import audioBasicIO
  File "D:\pyAudioAnalysis\pyAudioAnalysis\audioBasicIO.py", line 6, in <module>
    import eyed3
  File "D:\Anaconda\lib\site-packages\eyed3\__init__.py", line 32, in <module>
    from .utils.log import log                                  # noqa: E402
  File "D:\Anaconda\lib\site-packages\eyed3\utils\__init__.py", line 27, in <module>
    import magic
  File "D:\Anaconda\lib\site-packages\magic.py", line 181, in <module>
    raise ImportError('failed to find libmagic.  Check your installation')
ImportError: failed to find libmagic.  Check your installation
```

Solution:

This worked for me:

pip uninstall python-magic
pip install python-magic-bin==0.4.14

Test it again:

Error Pop-Ups:

>>> from pyAudioAnalysis import audioTrainTest as aT

D:\Anaconda\lib\site-packages\pydub\utils.py:165: RuntimeWarning: Couldn't find ffmpeg or avconv - defaulting to ffmpeg, but may not work

warn("Couldn't find ffmpeg or avconv - defaulting to ffmpeg, but may not work", RuntimeWarning)

Solution:

Download and unzip ffmpeg build for your Framewire and perform the following. "Link"

import pydub

pydub.AudioSegment.converter = r"C:\\path\\to\\ffmpeg.exe"

Test it again:

>>> from pyAudioAnalysis import audioBasicIO

>>> from pyAudioAnalysis import ShortTermFeatures

>>> import matplotlib.pyplot as plt

>>> [Fs, x] = audioBasicIO.read_audio_file(r"C:\Users\Moh\Desktop\Reports\Speech Recognition\hands-on-markov-models-with-python-p2p_2\harvard.wav")

>>> F, f_names = ShortTermFeatures.feature_extraction(x, Fs, 0.050*Fs, 0.025*Fs)

Traceback (most recent call last):

File "<stdin>", line 1, in <module>

File "D:\pyAudioAnalysis\pyAudioAnalysis\ShortTermFeatures.py", line 618, in feature_extraction

feature_vector[2] = energy_entropy(x)

File "D:\pyAudioAnalysis\pyAudioAnalysis\ShortTermFeatures.py", line 34, in energy_entropy

sub_wins = frame.reshape(sub_win_len, n_short_blocks, order='F').copy()

ValueError: cannot reshape array of size 4400 into shape (220,10)

For the double channel voice we will get

Solution:

Notice that:

The problem is that the audio I am using is stereo and the analysis only accepts mono audio type. Hence make a mono type audio file "with wave extension".

```
from pydub import AudioSegment
sound = AudioSegment.from_wav("/path/to/file.wav")
sound = sound.set_channels(1)
sound.export("/output/path.wav", format="wav")
```

Last test:

>>> import pydub

>>> pydub.AudioSegment.converter = r"C:\Users\Moh\Desktop\Reports\Audio Analysis\PyaudioAnalysis\ffmpeg-20191126-59d264b-win64-static\bin\ffmpeg.exe"

>>> from pyAudioAnalysis import audioBasicIO

>>> from pyAudioAnalysis import ShortTermFeatures

>>> import matplotlib.pyplot as plt

>>> [Fs, x] = audioBasicIO.read_audio_file(r"C:\Users\Moh\Desktop\Reports\Speech Recognition\hands-on-markov-models-with-python-p2p_2\harvardConverted.wav")

>>> F, f_names = ShortTermFeatures.feature_extraction(x, Fs, 0.050*Fs, 0.025*Fs)

>>> F.shape

(34, 733)

>>> plt.subplot(2,1,1); plt.plot(F[0,:]); plt.xlabel('Frame no'); plt.ylabel(f_names[0])

<matplotlib.axes._subplots.AxesSubplot object at 0x0000025134862C08>

[<matplotlib.lines.Line2D object at 0x00000251344236C8>]

Text(0.5, 0, 'Frame no')

Text(0, 0.5, 'zcr')

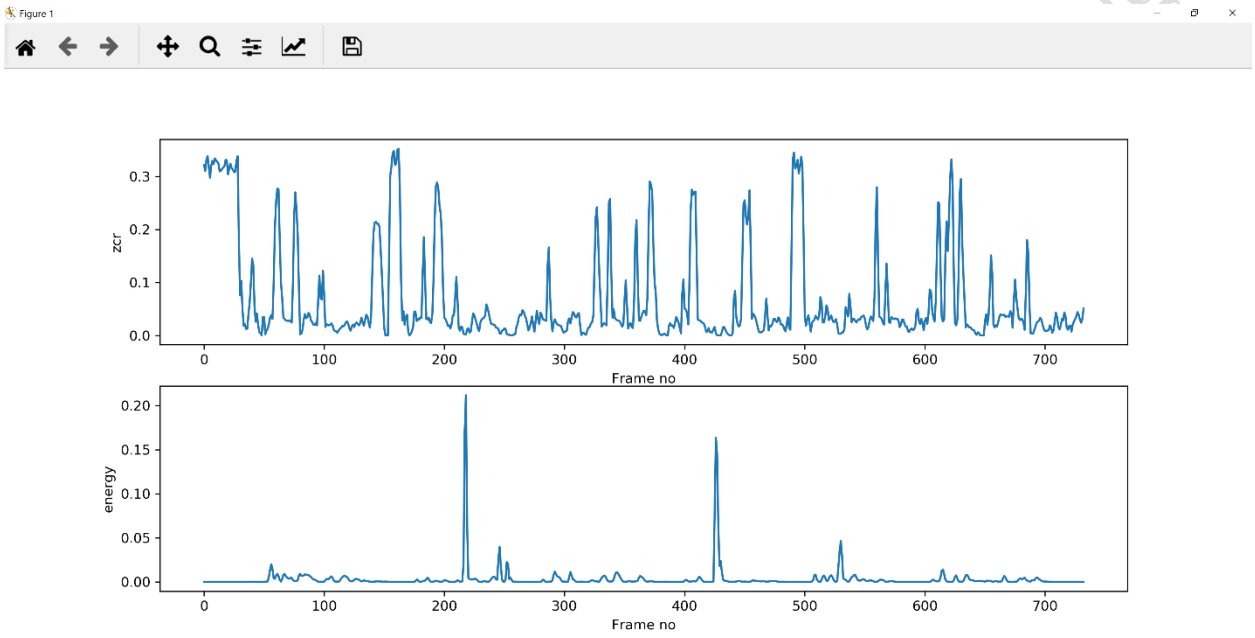
>>> plt.subplot(2,1,2); plt.plot(F[1,:]); plt.xlabel('Frame no'); plt.ylabel(f_names[1]); plt.show()

<matplotlib.axes._subplots.AxesSubplot object at 0x000002513C10E288>

[<matplotlib.lines.Line2D object at 0x000002513914B5C8>]

Text(0.5, 0, 'Frame no')

Text(0, 0.5, 'energy')



4. Done!