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Learn how to setup PortAudio and PyAudio in ubuntu to play with Speech Recognition

Hi Lovley Readers,

Its been a lovely sunday morning with cool breeze touching our face with the sun playing peek-a-boo between clouds. So I was reading about speech recognition and was playing with my microphone to recognize my voice. So I thought why not help my lovely readers to set up their speech to text base and play with words.

As I love ubuntu for my development environment I am going to give steps applicable using Ubuntu. So we start by following Steps:

1. Install Alsa Library:

So we start by installing Alsa Library which is the binding factor between pyaudio and portaudio. The Alsa Library has all dependencies which make the portaudio and pyaudio to combine together.

How to install that?

- Create a new folder and open using cd command in your terminal
- And then run the following command:

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For opening our folder.

```
sh-4.4$ sudo apt-get install libasound-dev
```

For running Alsa Library

This will install Alsa Library in our desired folder.

2. And then we need to set up the **PortAudio** Library. The portaudio library can be found from the following link: <http://www.portaudio.com/download.html>

And the latest stable version as of now is pa_stable_v190600_20161030.tgz

Place the extracted zip folder in the same folder where we installed the Alsalibrary.

3. Then we need to create a sub folder named usr and src and get root of the folder using **sudo su root** or if it is not working using **su root**.

```
sh-4.4$ sudo su root
```

For getting thr root of the folder.

```
sh-4.4$ su root
```

If the above command does not work.

4. Then we need to open into folder usr/src. We can extract the zip folder using the following command: **tar xvfz pa_stable_v190600_20161030.tgz**

5. Then execute the following commands by descending in the folder:

./configure

- Then we need to ensure that the ALSA library as **YES** when we are running the **./configure** command.
- Target x86_64-unknown-linux-gnu



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- C++ bindings no
- Debug output no
- *ALSA* *yes*
- ASIHPI no
- OSS yes
- JACK no

Install the following commands after that.

make

make install

ldconfig

6. And now we have successfully installed portaudio. Now we need to install PyAudio. The latest version of py audio is PyAudio-0.2.11.tar.gz. And we can do by using the following command:

pip install pyaudio

And so now we are ready to rock in speech recognotion. You can play by using your mic and test whether it is able to recognize your words.

So meet you all in next post. Till then happy Speech Recognition.

Ubuntu

Speech Recognition

Pyaudio

Portaudio

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