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Machine Learning A-Z™: Hands-On Python & R In Data Sc...

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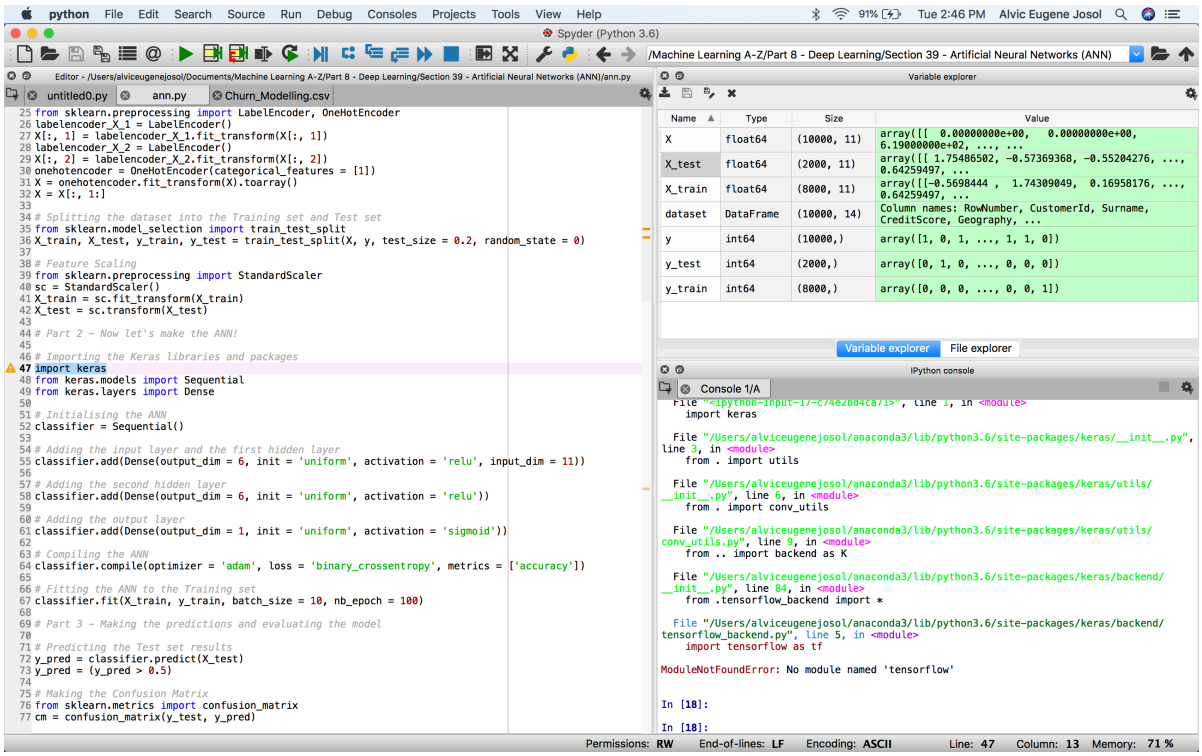
AJ

Need help to install Theano, Tensorflow & Keras

Alvic (/user/alvic-josol-2/) · Lecture 223 (/machinelearning/learn/v4/t/lecture/6118392) · 3 months ago

I really need help to install the 3 on Mac. I went thru the tutorials for R and had no problem installing h2o but for Python, I have problems installing Tensorflow on Anaconda. Appreciate you help here please. Thanks.



Follow Responses

Seby (/user/seby-jacob/) — Teaching Assistant · 3 months ago

Hi Alvic

Follow this guide instead: Its in windows, but its similar.

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I had a bit of trouble getting everything to work so I thought I'd outline what worked for me in the end (I used Windows 10, so the following is Windows specific, but can be adjusted for other operating systems).

I would recommend following the instructions in the course video first. If you're having trouble getting the packages to behave, this might be a useful alternative.

Step 1 - Create New Conda Environment)

Tensorflow didn't work with Python 3.6 for me, but I was able to get all packages working with 3.5.3. Luckily Anaconda has a really cool feature called 'environments' that allows more than version of Python to be installed in a different environments, each with different packages installed as you see fit. So you could have one environment for the sole purpose of these tutorials if you wanted, and it won't mess up your default Python install. This allows us to keep 3.6 as the default Python, whilst installing an older version, as well, for use with tensorflow.

To create the new environment called 'py35' open up the Windows command prompt and type:

```
conda create -n py35 python=3.5 anaconda
```

Call the environment whatever you want, I'm not the boss of you.

Note: This automatically installs python 3.5 in the new environment.

Step 2 - Install Spyder in the New Environment)

We can now start adding stuff to this environment. To do this, first activate the environment by typing the following into the command prompt:

```
activate py35
```

The command prompt should now change to have a `(py35)` at the beginning of each line. This indicates that we're working in the new py35 environment.

We can't actually use the version of Spyder that is already installed with the default Python. Running this version of Spyder will automatically use the default version of Python.

So we need to install Spyder within the new environment:

```
conda install spyder
```

Step 3 - Install the Packages)

Once spyder has been installed we can install the relevant packages. Again we need to be in the relevant environment, so type:

```
activate py35
```

if needs be. Then type:

`conda install theano`

`conda install tensorflow`

`conda install -c conda-forge keras`

Hopefully this should complete without errors. If you're having trouble getting tensorflow to work try: `pip install --ignore-installed --upgrade https://storage.googleapis.com/tensorflow/windows/cpu/tensorflow-1.1.0-cp35-cp35m-win_amd64.whl` as in the site:

https://www.tensorflow.org/install/install_windows

Also note that, when importing theano in Spyder, I got a message in the IPython console saying that I should install m2w64-toolchain to greatly improve performance. For me, this stopped theano from working and uninstalling m2w64-toolchain didn't fix the issue. I had to create a new environment and reinstall everything from scratch. Others may have better luck with m2w64-toolchain, but I had problems with it. I'd recommend cloning your environment and installing this on the cloned environment to test it first.

If you want the fancy GPU version of tensorflow, just type:

`pip install --upgrade https://storage.googleapis.com/tensorflow/windows/gpu/tensorflow_gpu-0.12.1-cp35-cp35m-win_amd64.whl`

as from the site: https://www.tensorflow.org/versions/r0.12/get_started/os_setup

I actually had trouble getting this GPU version of tensorflow to work, but this method matches what I've seen online. One tip I can give regarding the gpu version is that I had better luck when I used `pip install` for all the above packages, rather than `conda install` . Things got a little complicated though, as to get the gpu version working I needed to install cuDNN from https://developer.nvidia.com and configure it correctly. So I just stuck with the cpu version for now.

Step 4 - Run Spyder from the Environment)

In order to make sure that we're using Spyder with the relevant version of Python (version 3.5.3, with the packages installed in the last step), type:

`activate py35`

if you're not already in the environment, and then type:

`spyder`

to launch Spyder using Python 3.5.

In the IPython console, you should see Python 3.5.3 in the top line.

Step 5 - Test the Packages)

As a cursory check that the packages are working, you can try running the following from within ann.py in Spyder:

```
1  import theano
2  import tensorflow
3  import keras
```

If the IPython console doesn't spit out any error messages you're probably good.

Note 1)

The downside of this method is that, everytime you want to use Spyder, in order to make sure it's working with the correct version of Python (3.5 rather than the default 3.6 installation) you would have to open up a command prompt and run:

```
activate py35
```

followed by:

```
spyder
```

to launch Spyder.

There's probably a way to get Spyder to link to the correct environment from within Spyder's user interface, but after tinkering about I decided the above method was easier.

I think being able to organise different Python installs into different environments more than makes up for having to do some stuff in the command prompt. **Note 2)** Because a new environment is created some of the packages will need installing:

```
activate py35
```

```
pip install matplotlib
```

```
pip install pandas
```

```
pip install sklearn
```

```
pip install pillow
```

Best of Luck!

Seby Jacob.

==========

Mark as helpful (12)

ER

Emil (/user/emil-rijcken/) · 2 months ago

Hi, after I have gone through steps 1-3 and want to run Spyder as in step 4, I get the error message 'Python has stopped working' and that the program needs to be closed. Can you tell me how I can solve this?

Mark as helpful

Seby (/user/seby-jacob/) — Teaching Assistant · 2 months ago

Hi Emil,

Reinstall spyder. It seems like its a consistency problem with the new version of spyder.

Regards,

Seby

Mark as helpful

Marcus (/user/marcus-whelan/) · 2 months ago

What if you still can't activate when installing tensorflow? I type source activate tensorflow and I get nothing. typing activate tensorflow gives an error to use source. on mac

Mark as helpful

KS

Karthik (/user/karthik-suresh-12/) · a month ago

Dear Seby,

Following your steps, I got the same error that "**Python has stopped working"** and I installed spyder but still displays the same error . I have tried this thrice

Mark as helpful

VM

Vasudevan (/user/vasudevan-m-k/) · 12 days ago

Also Windows terminal does not recognize the command starting with 'conda"

Mark as helpful

Seby (/user/seby-jacob/) — Teaching Assistant · 4 days ago

Hi Vasudevan

You need to use the conda command in the anaconda prompt.

(Find it in start->programs->anaconda prompt)

Regards,

Seby

Mark as helpful

VM

Vasudevan (/user/vasudevan-m-k/) · 4 days ago

Yes, Thanks. I did find anaconda prompt and installed Theano, Tensorflow and Keras. However the problem arises when I try to import Keras, something like Tensorflow is not found.

Mark as helpful

AP

Add an answer