

My Deep Learning Laptop (in progress)

Hardware

I purchased a new laptop. (My eight year old Dell Windoze 10 (originally Windoze 8) laptop would not load Deep Learning Applications)

- CUK HP Omen 17t Gaming Notebook (Intel i7-10750H Six Core Processor 12MB Cache, 2.6GHz-5.0GHz, 45W), 32GB RAM, 512GB NVMe SSD + 1TB HDD, NVIDIA GeForce RTX 2080 Super 8GB, 17.3" FHD 300Hz IPS, Windows 10 Home) Gamer Laptop Computer.
- note: I did not spend extra for 4k display laptop screen display will use 4k HDMI out

I purchased a monitor. (My ten year old Dell monitor was getting blurry)

- Sceptre 35 Inch Curved UltraWide 21: 9 LED Creative Monitor QHD 3440x1440 Frameless AMD Freesync HDMI DisplayPort Up to 100Hz, Machine Black 2020 (C355W-3440UN)

(note: Hoping Laptop screen HDMI1 4k 100Hz output supports 3440x1440)

Software

Windoze 10 Home

Steps

1. Booted up Laptop - answered questions - setup Chrome as default browser - setup Google account - update and shutdown <done>
2. Attach Monitor, Keyboard/Mouse to Laptop and Power On. <done>
3. Investigate Deep Learning Software to load. (Anaconda, CUDA, TensorFlow, PyTorch, Keras,...) <done>
4. Download Anaconda3 Individual Edition Windows 64 via link <https://anaconda.com/download> <done>

(includes Numpy, Scipy, Matplotlib, Pandas, NLTK, SKlearn)

(can still be updated i.e. conda install numpy,...)

```
Open Anaconda3 Command Prompt type ipython at prompt (If you want to test)
import numpy as np
import matplotlib.pyplot as plt
a = np.random.randn(1000)
plt.plot(a)
plt.show()
plt.hist(a, bins = 15)
plt.show()
```

5. Install Deep Learning Libraries: Tensorflow, Keras, CNTL, Pytorch, Theano

Open Anaconda3 Command Prompt type ipython at prompt (If you haven't already)

pip install tensorflow <done>

pip install Keras (but first: conda install pip) <done>

pip install nltk <done>

pip install theano <done>

pip install <http://cntk.ai/...whl> (I need to google Microsoft CNTK python)

pip install https://cntk.ai/PythonWheel/GPU/cntk_gpu-2.7.post1-cp36-cp36m-win_amd64.whl (chose for NVIDIA GPU)

```
In [3]: pip install https://cntk.ai/PythonWheel/GPU/cntk_gpu-2.7.post1-cp36-cp36m-win_amd64.whl
ERROR: cntk_gpu-2.7.post1-cp36-cp36m-win_amd64.whl is not a supported wheel on this platform.
Note: you may need to restart the kernel to use updated packages.
```

pip install -c peterjc123 pytorch <did not work>

Error:

```
In [17]: pip install -c peterjc123 pytorch
ERROR: Could not open requirements file: [Errno 2] No such file or directory: 'peterjc123'
Note: you may need to restart the kernel to use updated packages.
```

Suggested Fix:

Anaconda Navigator - environments channels add "conda-forge" update channels (did not work but should be done anyway)

<Break>

6. NVIDIA GPU and Theano

Installed Conda Toolkit already

conda install theano <left bracket> pygpu]

7. Open AI Gym

Open Anaconda3 Command Prompt type ipython at prompt (If you haven't already)

pip install gym

conda install -c menpo ffmpeg (if you want to play and save videos with AI gym)

pip