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...also works for Ubuntu 18.04

I'll start my story with saying that I had issues like three years ago with CUDA 8.0 and Ubuntu 16.04. This time I'll be smarter and document the process for my future self.

1. Start terminal and remove any NVIDIA traces you may have on your machine.



```
sudo rm /etc/apt/sources.list.d/cuda*  
sudo apt remove --autoremove nvidia-cuda-toolkit  
sudo apt remove --autoremove nvidia-*
```

2. Setup the correct CUDA PPA on your system

```
sudo apt update  
sudo add-apt-repository ppa:graphics-drivers  
  
sudo apt-key adv --fetch-keys  
http://developer.download.nvidia.com/compute/cuda/repos/ubuntu1804/x86\_64/7fa2af80.pub  
  
sudo bash -c 'echo "deb  
http://developer.download.nvidia.com/compute/cuda/repos/ubuntu1804/x86\_64/" > /etc/apt/sources.list.d/cuda.list'  
  
sudo bash -c 'echo "deb  
http://developer.download.nvidia.com/compute/machine-learning/repos/ubuntu1804/x86\_64/" >  
/etc/apt/sources.list.d/cuda_learn.list'
```

### 3. Install CUDA 10.1 packages

```
sudo apt update
sudo apt install cuda-10-1
sudo apt install libcudnn7
```

4. As the last step one need to s  1.1K |  24 | in **‘.profile’** file. Open the file by running:

```
sudo vi ~/.profile
```

And add the following lines at the end of the file:

```
# set PATH for cuda 10.1 installation
if [ -d "/usr/local/cuda-10.1/bin/" ]; then
    export PATH=/usr/local/cuda-10.1/bin${PATH:+:${PATH}}
    export LD_LIBRARY_PATH=/usr/local/cuda-
10.1/lib64${LD_LIBRARY_PATH:+:${LD_LIBRARY_PATH}}
fi
```

5. Restart and check the versions for the installation.

CUDA:

```
nvcc - version

nvcc: NVIDIA (R) Cuda compiler driver
Copyright (c) 2005-2019 NVIDIA Corporation
Built on Wed_Apr_24_19:10:27_PDT_2019
Cuda compilation tools, release 10.1, V10.1.168
```

NVIDIA Driver:

```
nvidia-smi
```

libcudnn:

```
/sbin/ldconfig -N -v $(sed 's:/: /' <<< $LD_LIBRARY_PATH)
2>/dev/null | grep libcudnn
```

Enjoy CUDA coding!

Bonus track for everyone who wonders why it is so complicated:

<https://youtu.be/IVpOyKCNZYw>

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