

Initial Requirements

1. To build Tensorflow with GPU-enablement, you will first need to install CUDA and cuDNN dependencies.

Please refer to the details at <http://www.nvidia.com/object/gpu-accelerated-applications-tensorflow-installation.html> to install these dependencies.

i) CUDA -

- We have installed cuda-8.0 version (please see below)

```
$ wget
```

```
https://developer.nvidia.com/compute/cuda/8.0/Prod2/local_installers/cuda-repo-rhel7-8-0-local-ga2v2-8.0.61-1.ppc64le-rpm
```

```
$ sudo rpm -i cuda-repo-rhel7-8-0-local-ga2v2-8.0.61-1.ppc64le-rpm
```

```
$ sudo yum clean all
```

```
$ sudo yum install cuda
```

ii) cuDNN –

- Once the CUDA Toolkit is installed, download [cuDNN v6.0 Library](#) for Linux (note that you will need to register for the [Accelerated Computing Developer Program](#)). - See more at: <http://www.nvidia.com/object/gpu-accelerated-applications-tensorflow-installation.html>
- Please download cuDNN v6.0 Library for Linux [Power8]
- We have downloaded cuDNN v6.0 library from the following URL
- https://developer.nvidia.com/compute/machine-learning/cudnn/secure/v6/prod/8.0_20170427/cudnn-8.0-linux-ppc64le-v6.0.tgz
- Once downloaded, uncompress the files and copy them into the CUDA Toolkit directory (assumed here to be in /usr/local/cuda/):

```
$ sudo tar -xvf cudnn-8.0-linux-ppc64le-v6.0.tgz -C /usr/local
```

2. Additionally, three patches are required to build Tensorflow v1.3.1 on ppc64le using the build script.
 - These patches are provided along with the build script,
 - Please keep these patches on correct location while running the build script, otherwise build will fail
 - Suppose your TF build script is copied inside the /home/tf directory, then put all three patches inside the /home/tf/patches directory.