

Instructions to Install Tensorflow

1. Create a virtual environment using conda environment
 - a. `conda create --prefix /where/you/want/to/install python=3.6`
 - b. Source activate `~/where/you/want/to/install`
 - c. `pip install --user --upgrade tensorflow-gpu`
 - d. You need cuda/9.0
 - e. After successful installation check the installation
 - f. Python
 - i. Import tensorflow as tf
 - ii. It should not give any error

Instructions to Install Horovod

1. Source activate `~/where/you/want/to/install`
2. Install Open MPI or another MPI implementation.

Note: Open MPI 3.1.3 has an issue that may cause hangs. It is recommended to downgrade to Open MPI 3.1.2 or upgrade to Open MPI 4.0.0.

3. Install [NCCL 2](#).

Steps to install NCCL 2 are listed [here](#).

If you have installed NCCL 2 using the `nccl-<version>.txz` package, you should add the library path to `LD_LIBRARY_PATH` environment variable or register it in `/etc/ld.so.conf`.

```
$ export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/local/nccl-<version>/lib
```

4. Install the horovod pip package.

If you have installed NCCL 2 using the `nccl-<version>.txz` package, you should specify the path to NCCL 2 using the `HOROVOD_NCCL_HOME` environment variable.

```
$ HOROVOD_NCCL_HOME=/usr/local/nccl-<version> HOROVOD_GPU_ALLREDUCE=NCCL  
pip install --no-cache-dir horovod
```