

```
(/home/amalik/Pytorch_virtual_enviornment) [amalik@node04 ~]$  
HOROVOD_GPU_ALLREDUCE=NCCL HOROVOD_NCCL_HOME=/home/amalik/nccl_2.1.15-1  
+cuda9.0_x86_64/ pip install --user --no-cache-dir horovod==0.13.10  
Collecting horovod==0.13.10  
  Downloading https://files.pythonhosted.org/  
  packages/2c/7e/54f7759bc693ab19480c1b525decab5c1d846cd5fc3af97bda18364alaas5/  
  horovod-0.13.10.tar.gz (100kB)  
    100% |██████████| 102kB 3.9MB/s  
Requirement already satisfied: cffi>=1.4.0 in ./Pytorch_virtual_enviornment/lib/  
python2.7/site-packages (from horovod==0.13.10) (1.11.5)  
Requirement already satisfied: pycparser in ./Pytorch_virtual_enviornment/lib/  
python2.7/site-packages (from cffi>=1.4.0->horovod==0.13.10) (2.18)  
mkl-fft 1.0.4 requires cython, which is not installed.  
mkl-random 1.0.1 requires cython, which is not installed.  
mxnet-cu90 1.1.0 requires requests==2.18.4, which is not installed.  
grpcio 1.14.1 requires enum34>=1.0.4, which is not installed.  
tensorflow 1.10.0 requires enum34>=1.1.6, which is not installed.  
tensorflow 1.10.0 requires mock>=2.0.0, which is not installed.  
tensorflow 1.10.0 has requirement numpy<=1.14.5,>=1.13.3, but you'll have numpy  
1.15.1 which is incompatible.  
mxnet-cu90 1.1.0 has requirement numpy<=1.13.3, but you'll have numpy 1.15.1 which is  
incompatible.  
Installing collected packages: horovod  
  Running setup.py install for horovod ... error  
    Complete output from command /home/amalik/Pytorch_virtual_enviornment/bin/python -  
u -c "import setuptools, tokenize; __file__='/tmp/pip-install-4mZbe4/horovod/  
setup.py';f=getattr(tokenize, 'open', open)(__file__);code=f.read().replace('\r\n',  
'\n');f.close();exec(compile(code, __file__, 'exec'))" install --record /tmp/pip-  
record-1LQkAI/install-record.txt --single-version-externally-managed --compile --user  
--prefix=:  
    running install  
    running build  
    running build_py  
    creating build  
    creating build/lib.linux-x86_64-2.7  
    creating build/lib.linux-x86_64-2.7/horovod  
    copying horovod/__init__.py -> build/lib.linux-x86_64-2.7/horovod  
    creating build/lib.linux-x86_64-2.7/horovod/keras  
    copying horovod/keras/__init__.py -> build/lib.linux-x86_64-2.7/horovod/keras  
    copying horovod/keras/callbacks.py -> build/lib.linux-x86_64-2.7/horovod/keras  
    creating build/lib.linux-x86_64-2.7/horovod/torch  
    copying horovod/torch/mpi_ops.py -> build/lib.linux-x86_64-2.7/horovod/torch  
    copying horovod/torch/__init__.py -> build/lib.linux-x86_64-2.7/horovod/torch  
    creating build/lib.linux-x86_64-2.7/horovod/common  
    copying horovod/common/__init__.py -> build/lib.linux-x86_64-2.7/horovod/common  
    creating build/lib.linux-x86_64-2.7/horovod/tensorflow  
    copying horovod/tensorflow/mpi_ops.py -> build/lib.linux-x86_64-2.7/horovod/  
tensorflow  
    copying horovod/tensorflow/__init__.py -> build/lib.linux-x86_64-2.7/horovod/  
tensorflow  
    creating build/lib.linux-x86_64-2.7/horovod/torch/mpi_lib  
    copying horovod/torch/mpi_lib/__init__.py -> build/lib.linux-x86_64-2.7/horovod/  
torch/mpi_lib  
    creating build/lib.linux-x86_64-2.7/horovod/torch/mpi_lib_impl  
    copying horovod/torch/mpi_lib_impl/__init__.py -> build/lib.linux-x86_64-2.7/  
horovod/torch/mpi_lib_impl  
    running build_ext  
      mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-  
prototypes -fPIC -std=c++11 -fPIC -O2 -I/home/amalik/Pytorch_virtual_enviornment/  
include/python2.7 -c build/temp.linux-x86_64-2.7/test_compile/test_cpp_flags.cc -o  
build/temp.linux-x86_64-2.7/test_compile/test_cpp_flags.o  
cclplus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC
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but not for C++
    gcc -pthread -shared -B /home/amalik/Pytorch_virtual_enviornment/compiler_compat -L/home/amalik/Pytorch_virtual_enviornment/lib -Wl,-rpath=/home/amalik/Pytorch_virtual_enviornment/lib -Wl,--no-as-needed -Wl,--sysroot=/ build/temp.linux-x86_64-2.7/test_compile/test_cpp_flags.o -L/home/amalik/Pytorch_virtual_enviornment/lib -o build/temp.linux-x86_64-2.7/test_compile/test_cpp_flags.so
    mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -fPIC -std=c++11 -fPIC -O2 -I/usr/local/cuda/include -I/home/amalik/Pytorch_virtual_enviornment/include/python2.7 -c build/temp.linux-x86_64-2.7/test_compile/test_cuda.cc -o build/temp.linux-x86_64-2.7/test_compile/test_cuda.o
    cc1plus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC
but not for C++
    gcc -pthread -shared -B /home/amalik/Pytorch_virtual_enviornment/compiler_compat -L/home/amalik/Pytorch_virtual_enviornment/lib -Wl,-rpath=/home/amalik/Pytorch_virtual_enviornment/lib -Wl,--no-as-needed -Wl,--sysroot=/ build/temp.linux-x86_64-2.7/test_compile/test_cuda.o -L/usr/local/cuda/lib -L/usr/local/cuda/lib64 -L/home/amalik/Pytorch_virtual_enviornment/lib -lcudart -o build/temp.linux-x86_64-2.7/test_compile/test_cuda.so
    mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-prototypes -fPIC -std=c++11 -fPIC -O2 -I/home/amalik/nccl_2.1.15-1+cuda9.0_x86_64/include -I/usr/local/cuda/include -I/home/amalik/Pytorch_virtual_enviornment/include/python2.7 -c build/temp.linux-x86_64-2.7/test_compile/test_nccl.cc -o build/temp.linux-x86_64-2.7/test_compile/test_nccl.o
    cc1plus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC
but not for C++
    gcc -pthread -shared -B /home/amalik/Pytorch_virtual_enviornment/compiler_compat -L/home/amalik/Pytorch_virtual_enviornment/lib -Wl,-rpath=/home/amalik/Pytorch_virtual_enviornment/lib -Wl,--no-as-needed -Wl,--sysroot=/ build/temp.linux-x86_64-2.7/test_compile/test_nccl.o -L/home/amalik/nccl_2.1.15-1+cuda9.0_x86_64/lib -L/home/amalik/nccl_2.1.15-1+cuda9.0_x86_64/lib64 -L/usr/local/cuda/lib -L/usr/local/cuda/lib64 -L/home/amalik/Pytorch_virtual_enviornment/lib -lnccl_static -o build/temp.linux-x86_64-2.7/test_compile/test_nccl.so
    INFO: Unable to build TensorFlow plugin, will skip it.
```

```
Traceback (most recent call last):
  File "/tmp/pip-install-4mZbe4/horovod/setup.py", line 588, in build_extensions
    abi_compile_flags = build_tf_extension(self, options)
  File "/tmp/pip-install-4mZbe4/horovod/setup.py", line 441, in build_tf_extension
    check_tf_version()
  File "/tmp/pip-install-4mZbe4/horovod/setup.py", line 59, in check_tf_version
    'import tensorflow failed, is it installed?\n\n%s' % traceback.format_exc()
DistutilsPlatformError: import tensorflow failed, is it installed?
```

```
Traceback (most recent call last):
  File "/tmp/pip-install-4mZbe4/horovod/setup.py", line 52, in check_tf_version
    import tensorflow as tf
  File "/home/amalik/.local/lib/python2.7/site-packages/tensorflow/__init__.py", line 22, in <module>
    from tensorflow.python import pywrap_tensorflow # pylint: disable=unused-import
  File "/home/amalik/.local/lib/python2.7/site-packages/tensorflow/python/__init__.py", line 63, in <module>
    from tensorflow.python.framework.framework_lib import * # pylint: disable=redefined-builtin
  File "/home/amalik/.local/lib/python2.7/site-packages/tensorflow/python/framework/framework_lib.py", line 52, in <module>
    from tensorflow.python.framework.importer import import_graph_def
  File "/home/amalik/.local/lib/python2.7/site-packages/tensorflow/python/framework/importer.py", line 27, in <module>
    from tensorflow.python.framework import function
  File "/home/amalik/.local/lib/python2.7/site-packages/tensorflow/python/framework/function.py", line 39, in <module>
```

```
      from tensorflow.python.ops import variable_scope as vs
      File "/home/amalik/.local/lib/python2.7/site-packages/tensorflow/python/ops/
variable_scope.py", line 24, in <module>
          import enum # pylint: disable=g-bad-import-order
ImportError: No module named enum

generating /tmp/tmpZRmtgy/_test_cuda.c
setting the current directory to '/tmp/tmpZRmtgy'
running build_ext
building '_test_cuda' extension
mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-
prototypes -fPIC -I/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/site-
packages/torch/utils/ffi/../../lib/include -I/home/amalik/Pytorch_virtual_enviornment/
lib/python2.7/site-packages/torch/utils/ffi/../../lib/include/TH -I/home/amalik/
Pytorch_virtual_enviornment/lib/python2.7/site-packages/torch/utils/ffi/../../lib/
include/THC -I/usr/local/cuda/include -I/home/amalik/Pytorch_virtual_enviornment/
include/python2.7 -c _test_cuda.c -o ./_test_cuda.o -std=c99 -std=c11 -fPIC -O2
  gcc -pthread -shared -B /home/amalik/Pytorch_virtual_enviornment/compiler_compat -
L/home/amalik/Pytorch_virtual_enviornment/lib -Wl,-rpath=/home/amalik/
Pytorch_virtual_enviornment/lib -Wl,--no-as-needed -Wl,--sysroot=/ ./_test_cuda.o -L/
home/amalik/Pytorch_virtual_enviornment/lib -lpython2.7 -o ./_test_cuda.so
generating build/horovod/torch/mpi_lib/_mpi_lib.c
regenerated: 'build/horovod/torch/mpi_lib/_mpi_lib.c'
building 'horovod.torch.mpi_lib._mpi_lib' extension
creating build/temp.linux-x86_64-2.7/build
creating build/temp.linux-x86_64-2.7/build/horovod
creating build/temp.linux-x86_64-2.7/build/horovod/torch
creating build/temp.linux-x86_64-2.7/build/horovod/torch/mpi_lib
mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-
prototypes -fPIC -I/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/site-
packages/torch/utils/ffi/../../lib/include -I/home/amalik/Pytorch_virtual_enviornment/
lib/python2.7/site-packages/torch/utils/ffi/../../lib/include/TH -I/home/amalik/
Pytorch_virtual_enviornment/lib/python2.7/site-packages/torch/utils/ffi/../../lib/
include/THC -I/usr/local/cuda/include -I/home/amalik/Pytorch_virtual_enviornment/
include/python2.7 -c build/horovod/torch/mpi_lib/_mpi_lib.c -o build/temp.linux-
x86_64-2.7/build/horovod/torch/mpi_lib/_mpi_lib.o -std=c99 -std=c11 -fPIC -O2
  gcc -pthread -shared -B /home/amalik/Pytorch_virtual_enviornment/compiler_compat -
L/home/amalik/Pytorch_virtual_enviornment/lib -Wl,-rpath=/home/amalik/
Pytorch_virtual_enviornment/lib -Wl,--no-as-needed -Wl,--sysroot= build/temp.linux-
x86_64-2.7/build/horovod/torch/mpi_lib/_mpi_lib.o -L/home/amalik/
Pytorch_virtual_enviornment/lib -lpython2.7 -o build/lib.linux-x86_64-2.7/horovod/
torch/mpi_lib/_mpi_lib.so
generating build/horovod/torch/mpi_lib_impl/_mpi_lib_impl.cc
regenerated: 'build/horovod/torch/mpi_lib_impl/_mpi_lib_impl.cc'
building 'horovod.torch.mpi_lib_impl._mpi_lib_impl' extension
creating build/temp.linux-x86_64-2.7/build/horovod/torch/mpi_lib_impl
creating build/temp.linux-x86_64-2.7/tmp
creating build/temp.linux-x86_64-2.7/tmp/pip-install-4mZbe4
creating build/temp.linux-x86_64-2.7/tmp/pip-install-4mZbe4/horovod
creating build/temp.linux-x86_64-2.7/tmp/pip-install-4mZbe4/horovod/horovod
creating build/temp.linux-x86_64-2.7/tmp/pip-install-4mZbe4/horovod/horovod/torch
mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-
prototypes -fPIC -DHAVE_CUDA=1 -DHAVE_NCCL=1 -DHOROVOD_GPU_ALLREDUCE='N' -I/home/
amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/torch/utils/ffi/../../
lib/include -I/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/
torch/utils/ffi/../../lib/include/TH -I/home/amalik/Pytorch_virtual_enviornment/lib/
python2.7/site-packages/torch/utils/ffi/../../lib/include/THC -I/usr/local/cuda/
include -I/usr/local/cuda/include -I/home/amalik/nccl_2.1.15-1+cuda9.0_x86_64/
include -I/home/amalik/Pytorch_virtual_enviornment/include/python2.7 -c build/horovod/
torch/mpi_lib_impl/_mpi_lib_impl.cc -o build/temp.linux-x86_64-2.7/build/horovod/
torch/mpi_lib_impl/_mpi_lib_impl.o -std=c99 -std=c++11 -fPIC -O2 -I/software/
```

```
openmpi/3.0.0-gnu/include -pthread -Wl,-rpath -Wl,/software/openmpi/3.0.0-gnu/lib -Wl,--enable-new-dtags -L/software/openmpi/3.0.0-gnu/lib -lmпи  
    cclplus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC  
but not for C++  
    cclplus: warning: command line option '-std=c99' is valid for C/ObjC but not for C  
++  
    mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-  
prototypes -fPIC -DHAVE_CUDA=1 -DHAVE_NCCL=1 -DHOROVOD_GPU_ALLREDUCE='N' -I/home/  
amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/torch/utils/ffi/.../.../  
lib/include -I/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/  
torch/utils/ffi/.../lib/include/TH -I/home/amalik/Pytorch_virtual_enviornment/lib/  
python2.7/site-packages/torch/utils/ffi/.../lib/include/THC -I/usr/local/cuda/  
include -I/usr/local/cuda/include -I/home/amalik/nccl_2.1.15-1+cuda9.0_x86_64//  
include -I/home/amalik/Pytorch_virtual_enviornment/include/python2.7 -c /tmp/pip-  
install-4mZbe4/horovod/horovod/torch/mpi_ops.cc -o build/temp.linux-x86_64-2.7/tmp/  
pip-install-4mZbe4/horovod/horovod/torch/mpi_ops.o -std=c99 -std=c++11 -fPIC -O2 -I/  
software/openmpi/3.0.0-gnu/include -pthread -Wl,-rpath -Wl,/software/openmpi/3.0.0-  
gnu/lib -Wl,--enable-new-dtags -L/software/openmpi/3.0.0-gnu/lib -lmпи  
    cclplus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC  
but not for C++  
    cclplus: warning: command line option '-std=c99' is valid for C/ObjC but not for C  
++  
    mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-  
prototypes -fPIC -DHAVE_CUDA=1 -DHAVE_NCCL=1 -DHOROVOD_GPU_ALLREDUCE='N' -I/home/  
amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/torch/utils/ffi/.../.../  
lib/include -I/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/  
torch/utils/ffi/.../lib/include/TH -I/home/amalik/Pytorch_virtual_enviornment/lib/  
python2.7/site-packages/torch/utils/ffi/.../lib/include/THC -I/usr/local/cuda/  
include -I/usr/local/cuda/include -I/home/amalik/nccl_2.1.15-1+cuda9.0_x86_64//  
include -I/home/amalik/Pytorch_virtual_enviornment/include/python2.7 -c /tmp/pip-  
install-4mZbe4/horovod/horovod/torch/handle_manager.cc -o build/temp.linux-x86_64-2.7/  
tmp/pip-install-4mZbe4/horovod/horovod/torch/handle_manager.o -std=c99 -std=c++11 -  
fPIC -O2 -I/software/openmpi/3.0.0-gnu/include -pthread -Wl,-rpath -Wl,/software/  
openmpi/3.0.0-gnu/lib -Wl,--enable-new-dtags -L/software/openmpi/3.0.0-gnu/lib -lmпи  
    cclplus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC  
but not for C++  
    cclplus: warning: command line option '-std=c99' is valid for C/ObjC but not for C  
++  
    mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-  
prototypes -fPIC -DHAVE_CUDA=1 -DHAVE_NCCL=1 -DHOROVOD_GPU_ALLREDUCE='N' -I/home/  
amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/torch/utils/ffi/.../.../  
lib/include -I/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/  
torch/utils/ffi/.../lib/include/TH -I/home/amalik/Pytorch_virtual_enviornment/lib/  
python2.7/site-packages/torch/utils/ffi/.../lib/include/THC -I/usr/local/cuda/  
include -I/usr/local/cuda/include -I/home/amalik/nccl_2.1.15-1+cuda9.0_x86_64//  
include -I/home/amalik/Pytorch_virtual_enviornment/include/python2.7 -c /tmp/pip-  
install-4mZbe4/horovod/horovod/torch/ready_event.cc -o build/temp.linux-x86_64-2.7/  
tmp/pip-install-4mZbe4/horovod/horovod/torch/ready_event.o -std=c99 -std=c++11 -fPIC -  
O2 -I/software/openmpi/3.0.0-gnu/include -pthread -Wl,-rpath -Wl,/software/  
openmpi/3.0.0-gnu/lib -Wl,--enable-new-dtags -L/software/openmpi/3.0.0-gnu/lib -lmпи  
    cclplus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC  
but not for C++  
    cclplus: warning: command line option '-std=c99' is valid for C/ObjC but not for C  
++  
    mpicc -fno-strict-aliasing -g -O2 -DNDEBUG -g -fwrapv -O3 -Wall -Wstrict-  
prototypes -fPIC -DHAVE_CUDA=1 -DHAVE_NCCL=1 -DHOROVOD_GPU_ALLREDUCE='N' -I/home/  
amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/torch/utils/ffi/.../.../  
lib/include -I/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/site-packages/  
torch/utils/ffi/.../lib/include/TH -I/home/amalik/Pytorch_virtual_enviornment/lib/  
python2.7/site-packages/torch/utils/ffi/.../lib/include/THC -I/usr/local/cuda/  
include -I/usr/local/cuda/include -I/home/amalik/nccl_2.1.15-1+cuda9.0_x86_64//  
include -I/home/amalik/Pytorch_virtual_enviornment/include/python2.7 -c /tmp/pip-
```

```
install-4mZbe4/horovod/horovod/torch/tensor_util.cc -o build/temp.linux-x86_64-2.7/
tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.o -std=c99 -std=c++11 -fPIC -O2 -I/software/openmpi/3.0.0-gnu/include -pthread -Wl,-rpath -Wl,/software/openmpi/3.0.0-gnu/lib -Wl,--enable-new-dtags -L/software/openmpi/3.0.0-gnu/lib -lmpli
cclplus: warning: command line option '-Wstrict-prototypes' is valid for C/ObjC
but not for C++
cclplus: warning: command line option '-std=c99' is valid for C/ObjC but not for C
++
In file included from /tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:16:0:
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:90:33: error:
redefinition of 'static const horovod::common::MPIDataType
horovod::torch::TensorUtil::GetDType() [with T = THTensor]'
template <> const MPIDataType TensorUtil::GetDType<THTensor>() {
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:23:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
TENSOR_UTIL_DEFINE_TYPE(THCharTensor, THCharStorage, MPIDataType::HOROVOD_INT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:90:33: note: 'static
const horovod::common::MPIDataType horovod::torch::TensorUtil::GetDType() [with T =
THTensor]' previously declared here
template <> const MPIDataType TensorUtil::GetDType<THTensor>() {
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:95:21: error:
redefinition of 'static const horovod::common::TensorShape
horovod::torch::TensorUtil::GetShape(T*) [with T = THTensor]'
const TensorShape TensorUtil::GetShape<THTensor>(THTensor * tensor) {
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:23:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
TENSOR_UTIL_DEFINE_TYPE(THCharTensor, THCharStorage, MPIDataType::HOROVOD_INT8)
^~~~~~
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```

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^~~~~~  
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:176:20: error:  
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:194:8: error:  
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    ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:144:33: error:
redefinition of 'static const horovod::common::MPIDataType
horovod::torch::TensorUtil::GetDType() [with T = THTensor]'
template <> const MPIDataType TensorUtil::GetDType<THCTensor>() {           \
    ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:36:1: note: in
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    ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:90:33: note: 'static
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THTensor]' previously declared here
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:149:21: error:
redefinition of 'static const horovod::common::TensorShape
horovod::torch::TensorUtil::GetShape(T*) [with T = THTensor]'
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:161:23: error:  
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redefinition of 'static T* horovod::torch::TensorUtil::New(int) [with T = THTensor]'  
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:121:20: note: 'static
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with  
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    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*)  
[with TC = THTensor; T = THTensor]'  
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,   \  
    ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:36:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaCharTensor, THCharTensor, THCudaCharStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: note: 'static  
void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*) [with TC = THTensor; T =  
THTensor]' previously declared here  
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,   \  
    ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:144:33: error:  
redefinition of 'static const horovod::common::MPIDataType  
horovod::torch::TensorUtil::GetDType() [with T = THTensor]'  
    template <> const MPIDataType TensorUtil::GetDType<THCTensor>() {           \  
    ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:90:33: note: 'static  
const horovod::common::MPIDataType horovod::torch::TensorUtil::GetDType() [with T =  
THTensor]' previously declared here  
    template <> const MPIDataType TensorUtil::GetDType<THTensor>() {           \  
    ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:149:21: error:  
redefinition of 'static const horovod::common::TensorShape  
horovod::torch::TensorUtil::GetShape(T*) [with T = THTensor]'  
    const TensorShape TensorUtil::GetShape<THCTensor>(THCTensor * tensor) {       \  
    ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,
```

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^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:95:21: note: 'static  
const horovod::common::TensorShape horovod::torch::TensorUtil::GetShape(T*) [with T =  
THTensor]' previously declared here  
    const TensorShape TensorUtil::GetShape<THTensor>(THTensor * tensor) {      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:157:27: error:  
redefinition of 'static const void* horovod::torch::TensorUtil::GetData(T*) [with T =  
THTensor]'  
    template <> const void* TensorUtil::GetData<THCTensor>(THCTensor * tensor) { \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:103:27: note: 'static  
const void* horovod::torch::TensorUtil::GetData(T*) [with T = THTensor]' previously  
declared here  
    template <> const void* TensorUtil::GetData<THTensor>(THTensor * tensor) { \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:161:23: error:  
redefinition of 'static int64_t horovod::torch::TensorUtil::GetSize(T*) [with T =  
THTensor; int64_t = long int]'  
    template <> int64_t TensorUtil::GetSize<THCTensor>(THCTensor * tensor) { \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:107:23: note: 'static  
int64_t horovod::torch::TensorUtil::GetSize(T*) [with T = THTensor; int64_t = long  
int]' previously declared here  
    template <> int64_t TensorUtil::GetSize<THTensor>(THTensor * tensor) { \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:167:19: error:  
redefinition of 'static int horovod::torch::TensorUtil::GetDevice(T*) [with T =  
THTensor]'  
    template <> int TensorUtil::GetDevice<THCTensor>(THCTensor * tensor) { \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:112:19: note: 'static  
int horovod::torch::TensorUtil::GetDevice(T*) [with T = THTensor]' previously  
declared here  
    template <> int TensorUtil::GetDevice<THTensor>(THTensor * tensor) { \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
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TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:171:26: error:
redefinition of 'static T* horovod::torch::TensorUtil::New(int) [with T = THTensor]'
    template <> THCTensor* TensorUtil::New<THCTensor>(int device) {           \
                  ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:116:25: note: 'static
T* horovod::torch::TensorUtil::New(int) [with T = THTensor]' previously declared here
    template <> THTensor* TensorUtil::New<THTensor>(int device) {           \
                  ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:176:20: error:
redefinition of 'static void horovod::torch::TensorUtil::Free(T*) [with T = THTensor]'
    template <> void TensorUtil::Free<THCTensor>(THCTensor * tensor) {           \
                  ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:121:20: note: 'static
void horovod::torch::TensorUtil::Free(T*) [with T = THTensor]' previously declared
here
    template <> void TensorUtil::Free<THTensor>(THTensor * tensor) {           \
                  ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:181:8: error:
redefinition of 'static void horovod::torch::TensorUtil::ResizeNd(T*, int, int64_t*, 
int64_t*) [with T = THTensor; int64_t = long int]'
    void TensorUtil::ResizeNd<THCTensor>(THCTensor * tensor, int nDimension,      \
                  ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:126:8: note: 'static
void horovod::torch::TensorUtil::ResizeNd(T*, int, int64_t*, int64_t*) [with T =
THTensor; int64_t = long int]' previously declared here
    void TensorUtil::ResizeNd<THTensor>(THTensor * tensor, int nDimension,      \
                  ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:188:8: error:
redefinition of 'static void horovod::torch::TensorUtil::Copy(T*, T*) [with T =
THTensor]'
    void TensorUtil::Copy<THCTensor>(THCTensor * output, THCTensor * tensor) {   \
                  ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,
^~~~~~
```

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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:132:8: note: 'static
void horovod::torch::TensorUtil::Copy(T*, T*) [with T = THTensor]' previously
declared here
    void TensorUtil::Copy<THTensor>(THTensor * output, THTensor * tensor) {      \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:194:8: error:
redefinition of 'static void horovod::torch::TensorUtil::DivideTensorInPlace(T*, int)
[with T = THTensor]'
    void TensorUtil::DivideTensorInPlace<THCTensor>(THCTensor * tensor,      \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:137:8: note: 'static
void horovod::torch::TensorUtil::DivideTensorInPlace(T*, int) [with T = THTensor]'
previously declared here
    void TensorUtil::DivideTensorInPlace<THTensor>(THTensor * tensor,      \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: error:
redefinition of 'static void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with
T = THTensor; TC = THTensor]'
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,      \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: note: 'static
void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with T = THTensor; TC =
THTensor]' previously declared here
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,      \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: error:
redefinition of 'static void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*)'
[with TC = THTensor; T = THTensor']
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,  \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:38:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaShortTensor, THShortTensor,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: note: 'static
void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*) [with TC = THTensor; T =
THTensor]' previously declared here
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,  \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,
```

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^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:144:33: error:  
redefinition of 'static const horovod::common::MPIDataType  
horovod::torch::TensorUtil::GetDType() [with T = THTensor]'  
    template <> const MPIDataType TensorUtil::GetDType<THCTensor>() { \\\n        ^\n  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:90:33: note: 'static  
const horovod::common::MPIDataType horovod::torch::TensorUtil::GetDType() [with T =  
THTensor]' previously declared here  
    template <> const MPIDataType TensorUtil::GetDType<THTensor>() { \\\n        ^\n  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:149:21: error:  
redefinition of 'static const horovod::common::TensorShape  
horovod::torch::TensorUtil::GetShape(T*) [with T = THTensor]'  
    const TensorShape TensorUtil::GetShape<THCTensor>(THCTensor * tensor) { \\\n        ^\n  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:95:21: note: 'static  
const horovod::common::TensorShape horovod::torch::TensorUtil::GetShape(T*) [with T =  
THTensor]' previously declared here  
    const TensorShape TensorUtil::GetShape<THTensor>(THTensor * tensor) { \\\n        ^\n  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:157:27: error:  
redefinition of 'static const void* horovod::torch::TensorUtil::GetData(T*) [with T =  
THTensor]'  
    template <> const void* TensorUtil::GetData<THCTensor>(THCTensor * tensor) { \\\n        ^\n  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:103:27: note: 'static  
const void* horovod::torch::TensorUtil::GetData(T*) [with T = THTensor]' previously  
declared here  
    template <> const void* TensorUtil::GetData<THTensor>(THTensor * tensor) { \\\n        ^\n  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:161:23: error:  
redefinition of 'static int64_t horovod::torch::TensorUtil::GetSize(T*) [with T =  
THTensor; int64_t = long int]'  
    template <> int64_t TensorUtil::GetSize<THCTensor>(THCTensor * tensor) { \\\n        ^\n  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
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TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:107:23: note: 'static
int64_t horovod::torch::TensorUtil::GetSize(T*) [with T = THIntTensor; int64_t = long
int]' previously declared here
    template <> int64_t TensorUtil::GetSize<THIntTensor>(THIntTensor * tensor) {      \
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:167:19: error:
redefinition of 'static int horovod::torch::TensorUtil::GetDevice(T*) [with T =
THIntTensor]'
    template <> int TensorUtil::GetDevice<THCTensor>(THCTensor * tensor) {      \
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:112:19: note: 'static
int horovod::torch::TensorUtil::GetDevice(T*) [with T = THIntTensor]' previously
declared here
    template <> int TensorUtil::GetDevice<THIntTensor>(THIntTensor * tensor) {      \
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
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    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:171:26: error:
redefinition of 'static T* horovod::torch::TensorUtil::New(int) [with T = THIntTensor]'
    template <> THCTensor* TensorUtil::New<THCTensor>(int device) {      \
^~~~~~
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expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:116:25: note: 'static
T* horovod::torch::TensorUtil::New(int) [with T = THIntTensor]' previously declared here
    template <> THIntTensor* TensorUtil::New<THIntTensor>(int device) {      \
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:176:20: error:
redefinition of 'static void horovod::torch::TensorUtil::Free(T*) [with T = THIntTensor]'
    template <> void TensorUtil::Free<THCTensor>(THCTensor * tensor) {      \
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:121:20: note: 'static
void horovod::torch::TensorUtil::Free(T*) [with T = THIntTensor]' previously declared
here
    template <> void TensorUtil::Free<THIntTensor>(THIntTensor * tensor) {      \
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
```

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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:181:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::ResizeNd(T*, int, int64_t*,  
int64_t*)' [with T = THTensor; int64_t = long int]  
    void TensorUtil::ResizeNd<THCTensor>(THCTensor * tensor, int nDimension,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:126:8: note: 'static  
void horovod::torch::TensorUtil::ResizeNd(T*, int, int64_t*, int64_t*)' [with T =  
THTensor; int64_t = long int] previously declared here  
    void TensorUtil::ResizeNd<THTensor>(THTensor * tensor, int nDimension,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:188:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::Copy(T*, T*)' [with T =  
THTensor]  
    void TensorUtil::Copy<THCTensor>(THCTensor * output, THCTensor * tensor) { \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:132:8: note: 'static  
void horovod::torch::TensorUtil::Copy(T*, T*)' [with T = THTensor] previously  
declared here  
    void TensorUtil::Copy<THTensor>(THTensor * output, THTensor * tensor) {      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:194:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::DivideTensorInPlace(T*, int)  
[with T = THTensor]  
    void TensorUtil::DivideTensorInPlace<THCTensor>(THCTensor * tensor,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:137:8: note: 'static  
void horovod::torch::TensorUtil::DivideTensorInPlace(T*, int)' [with T = THTensor]  
previously declared here  
    void TensorUtil::DivideTensorInPlace<THTensor>(THTensor * tensor,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*)' [with  
T = THTensor; TC = THTensor]  
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,
```

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^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: note: 'static  
void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with T = THTensor; TC =  
THTensor]' previously declared here  
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*)  
[with TC = THTensor; T = THTensor]'  
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,   \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:40:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaIntTensor, THIntTensor, THCudaIntStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: note: 'static  
void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*) [with TC = THTensor; T =  
THTensor]' previously declared here  
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,   \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:144:33: error:  
redefinition of 'static const horovod::common::MPIDataType  
horovod::torch::TensorUtil::GetDType() [with T = THTensor]'  
    template <> const MPIDataType TensorUtil::GetDType<THCTensor>() {           \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:90:33: note: 'static  
const horovod::common::MPIDataType horovod::torch::TensorUtil::GetDType() [with T =  
THTensor]' previously declared here  
    template <> const MPIDataType TensorUtil::GetDType<THTensor>() {           \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:149:21: error:  
redefinition of 'static const horovod::common::TensorShape  
horovod::torch::TensorUtil::GetShape(T*) [with T = THTensor]'  
    const TensorShape TensorUtil::GetShape<THCTensor>(THCTensor * tensor) {     \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:95:21: note: 'static  
const horovod::common::TensorShape horovod::torch::TensorUtil::GetShape(T*) [with T =  
THTensor]' previously declared here  
    const TensorShape TensorUtil::GetShape<THTensor>(THTensor * tensor) {       \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
```

```
TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:157:27: error:
redefinition of 'static const void* horovod::torch::TensorUtil::GetData(T*)' [with T =
THTensor]'
    template <> const void* TensorUtil::GetData<THCTensor>(THCTensor * tensor) { \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:103:27: note: 'static
const void* horovod::torch::TensorUtil::GetData(T*)' [with T = THTensor]' previously
declared here
    template <> const void* TensorUtil::GetData<THTensor>(THTensor * tensor) { \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:161:23: error:
redefinition of 'static int64_t horovod::torch::TensorUtil::GetSize(T*)' [with T =
THTensor; int64_t = long int]'
    template <> int64_t TensorUtil::GetSize<THCTensor>(THCTensor * tensor) { \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:107:23: note: 'static
int64_t horovod::torch::TensorUtil::GetSize(T*)' [with T = THTensor; int64_t = long
int]' previously declared here
    template <> int64_t TensorUtil::GetSize<THTensor>(THTensor * tensor) { \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:167:19: error:
redefinition of 'static int horovod::torch::TensorUtil::GetDevice(T*)' [with T =
THTensor]'
    template <> int TensorUtil::GetDevice<THCTensor>(THCTensor * tensor) { \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:112:19: note: 'static
int horovod::torch::TensorUtil::GetDevice(T*)' [with T = THTensor]' previously
declared here
    template <> int TensorUtil::GetDevice<THTensor>(THTensor * tensor) { \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:171:26: error:
redefinition of 'static T* horovod::torch::TensorUtil::New(int)' [with T = THTensor]'
    template <> THCTensor* TensorUtil::New<THCTensor>(int device) { \
        ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
```

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TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:116:25: note: 'static
T* horovod::torch::TensorUtil::New(int) [with T = THTensor]' previously declared here
template <> THTensor* TensorUtil::New<THTensor>(int device) {           \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:176:20: error:
redefinition of 'static void horovod::torch::TensorUtil::Free(T*) [with T = THTensor]'
template <> void TensorUtil::Free<THCTensor>(THCTensor * tensor) {           \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:121:20: note: 'static
void horovod::torch::TensorUtil::Free(T*) [with T = THTensor]' previously declared
here
template <> void TensorUtil::Free<THTensor>(THTensor * tensor) {           \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:181:8: error:
redefinition of 'static void horovod::torch::TensorUtil::ResizeNd(T*, int, int64_t*, 
int64_t*) [with T = THTensor; int64_t = long int]'
void TensorUtil::ResizeNd<THCTensor>(THCTensor * tensor, int nDimension,      \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:126:8: note: 'static
void horovod::torch::TensorUtil::ResizeNd(T*, int, int64_t*, int64_t*) [with T =
THTensor; int64_t = long int]' previously declared here
void TensorUtil::ResizeNd<THTensor>(THTensor * tensor, int nDimension,      \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:188:8: error:
redefinition of 'static void horovod::torch::TensorUtil::Copy(T*, T*) [with T =
THTensor]'
void TensorUtil::Copy<THCTensor>(THCTensor * output, THCTensor * tensor) { \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:132:8: note: 'static
void horovod::torch::TensorUtil::Copy(T*, T*) [with T = THTensor]' previously
declared here
void TensorUtil::Copy<THTensor>(THTensor * output, THTensor * tensor) { \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:194:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::DivideTensorInPlace(T*, int)  
[with T = THTensor]'  
    void TensorUtil::DivideTensorInPlace<THCTensor>(THCTensor * tensor,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:137:8: note: 'static  
void horovod::torch::TensorUtil::DivideTensorInPlace(T*, int) [with T = THTensor]'  
previously declared here  
    void TensorUtil::DivideTensorInPlace<THTensor>(THTensor * tensor,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'  
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with  
T = THTensor; TC = THTensor]'  
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: note: 'static  
void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with T = THTensor; TC =  
THTensor]' previously declared here  
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*)  
[with TC = THTensor; T = THTensor]'  
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:42:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaLongTensor, THLongTensor, THCudaLongStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: note: 'static  
void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*) [with TC = THTensor; T =  
THTensor]' previously declared here  
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,      \  
        ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,  
    ^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:144:33: error:  
redefinition of 'static const horovod::common::MPIDataType  
horovod::torch::TensorUtil::GetDType() [with T = THTensor]'  
template <> const MPIDataType TensorUtil::GetDType<THCTensor>() {      \  
    ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:44:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
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TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaTensor, THFloatTensor, THCudaStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:90:33: note: 'static
const horovod::common::MPIDataType horovod::torch::TensorUtil::GetDType() [with T =
THTensor]' previously declared here
    template <> const MPIDataType TensorUtil::GetDType<THTensor>() {           \
        ^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:149:21: error:
redefinition of 'static const horovod::common::TensorShape
horovod::torch::TensorUtil::GetShape(T*) [with T = THTensor]'
    const TensorShape TensorUtil::GetShape<THCTensor>(THCTensor * tensor) {      \
        ^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:44:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaTensor, THFloatTensor, THCudaStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:95:21: note: 'static
const horovod::common::TensorShape horovod::torch::TensorUtil::GetShape(T*) [with T =
THTensor]' previously declared here
    const TensorShape TensorUtil::GetShape<THTensor>(THTensor * tensor) {      \
        ^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
    TENSOR_UTIL_DEFINE_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:157:27: error:
redefinition of 'static const void* horovod::torch::TensorUtil::GetData(T*) [with T =
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    void TensorUtil::ResizeNd<THCTensor>(THCTensor * tensor, int nDimension,      \
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    ^  
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:194:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::DivideTensorInPlace(T*, int)  
[with T = THTensor]'  
    void TensorUtil::DivideTensorInPlace<THCTensor>(THCTensor * tensor,      \  
    ^  
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    ^  
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^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: error:  
redefinition of 'static void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with  
T = THTensor; TC = THTensor]'  
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,      \  
    ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:44:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'  
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaTensor, THFloatTensor, THCudaStorage,  
^~~~~~  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: note: 'static  
void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with T = THTensor; TC =  
THTensor]' previously declared here  
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,      \  
    ^  
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in  
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
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TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: error:
redefinition of 'static void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*)
[with TC = THTensor; T = THTensor]'
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda, \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:44:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaTensor, THFloatTensor, THCudaStorage,
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: note: 'static
void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*) [with TC = THTensor; T =
THTensor]' previously declared here
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda, \
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
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^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:144:33: error:
redefinition of 'static const horovod::common::MPIDataType
horovod::torch::TensorUtil::GetDType() [with T = THTensor]'
    template <> const MPIDataType TensorUtil::GetDType<THCTensor>() { \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:46:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaDoubleTensor, THDoubleTensor,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:90:33: note: 'static
const horovod::common::MPIDataType horovod::torch::TensorUtil::GetDType() [with T =
THTensor]' previously declared here
    template <> const MPIDataType TensorUtil::GetDType<THTensor>() { \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:22:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_TYPE'
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^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:149:21: error:
redefinition of 'static const horovod::common::TensorShape
horovod::torch::TensorUtil::GetShape(T*) [with T = THTensor]'
    const TensorShape TensorUtil::GetShape<THCTensor>(THCTensor * tensor) { \
^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:46:1: note: in
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:95:21: note: 'static
const horovod::common::TensorShape horovod::torch::TensorUtil::GetShape(T*) [with T =
THTensor]' previously declared here
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/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:46:1: note: in
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    TENSOR_UTIL_DEFINE_CUDA_TYPE(THByteTensor, THByteStorage, MPIDataType::HOROVOD_UINT8)
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: error:
redefinition of 'static void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with
T = THTensor; TC = THTensor]'
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,           \
    ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:46:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaDoubleTensor, THDoubleTensor,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:201:8: note: 'static
void horovod::torch::TensorUtil::CopyCPUToCuda(T*, TC*) [with T = THTensor; TC =
THTensor]' previously declared here
    void TensorUtil::CopyCPUToCuda<THTensor, THCTensor>(THTensor * cpu,           \
    ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: error:
redefinition of 'static void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*)'
[with TC = THTensor; T = THTensor]
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,   \
    ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:46:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaDoubleTensor, THDoubleTensor,
^~~~~~
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.h:213:8: note: 'static
void horovod::torch::TensorUtil::AsyncCopyCudaToCPU(TC*, T*) [with TC = THTensor; T =
THTensor]' previously declared here
    void TensorUtil::AsyncCopyCudaToCPU<THCTensor, THTensor>(THCTensor * cuda,   \
    ^
/tmp/pip-install-4mZbe4/horovod/horovod/torch/tensor_util.cc:34:1: note: in
expansion of macro 'TENSOR_UTIL_DEFINE_CUDA_TYPE'
    TENSOR_UTIL_DEFINE_CUDA_TYPE(THCudaByteTensor, THByteTensor, THCudaByteStorage,
^~~~~~
INFO: Unable to build PyTorch plugin, will skip it.

Traceback (most recent call last):
  File "/tmp/pip-install-4mZbe4/horovod/setup.py", line 599, in build_extensions
    build_torch_extension(self, options, abi_compile_flags)
  File "/tmp/pip-install-4mZbe4/horovod/setup.py", line 574, in
build_torch_extension
    build_ext.build_extension(setuptools_ext)
  File "/home/amalik/.local/lib/python2.7/site-packages/setuptools/command/
build_ext.py", line 199, in build_extension
    _build_ext.build_extension(self, ext)
  File "/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/distutils/command/
build_ext.py", line 499, in build_extension
    depends=ext.depends)
  File "/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/distutils/
```

```
ccompiler.py", line 574, in compile
    self._compile(obj, src, ext, cc_args, extra_postargs, pp_opts)
  File "/home/amalik/Pytorch_virtual_enviornment/lib/python2.7/distutils/
unixccompiler.py", line 124, in _compile
    raise CompileError, msg
CompileError: command 'mpicc' failed with exit status 1

error: Neither TensorFlow nor PyTorch plugins were built. See errors above.

-----
Command "/home/amalik/Pytorch_virtual_enviornment/bin/python -u -c "import
setuptools, tokenize; __file__='/tmp/pip-install-4mZbe4/horovod/setup.py';f=getattr
(tokenize, 'open', open)(__file__);code=f.read().replace('\r\n', '\n');f.close();exec
(compile(code, __file__, 'exec'))" install --record /tmp/pip-record-1LQkAI/install-
record.txt --single-version-externally-managed --compile --user --prefix="
failed
with error code 1 in /tmp/pip-install-4mZbe4/horovod/
You are using pip version 10.0.1, however version 18.0 is available.
You should consider upgrading via the 'pip install --upgrade pip' command.
```