

LoG Book

DiffAssemble-release Test Record

1. reference

- article link: <https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Farxiv.org%2Fabs%2F2402.19302&data=05%7C02%7Cyanxia.lang%40durham.ac.uk%7C%3A%2F%2Fgithub.com%2FIIIT-PAVIS%2FDiffAssemble-release%2Fblob%2Fmain%2FREADME.md&isRedir=true>
- github link: <https://github.com/IIIT-PAVIS/DiffAssemble-release>

2. DiffAssemble structure

3. git code install on NCC

using ncc terminal

- platform: NCC COMP52715 Jupyter Server
- install code:
 - windows: open command -> Win+R -> input "cmd"
 - Mac/Linux: open terminal -> command + space -> input "Terminal"
 - folder upload: scp -r DiffAssemble-release remote-path

2. DiffAssemble trainning

i. preparation

- python version:
 - command:
 - python --version -> Python 2.7.18
 - python3 --version -> Python 3.8.10
 - reference: <https://www.pythonpool.com/how-to-check-python-version/>
 - notebook code:

```
In [9]: ! python --version
! python3 --version
import sys
print(sys.version)

import platform
print(platform.python_version())

Python 2.7.18
Python 3.8.10
3.11.11 (main, Dec 4 2024, 08:55:08) [GCC 9.4.0]
3.11.11
```

- python script run :
 - terminal:
 - cd DiffAssemble-release/DiffAssemble-release/puzzle_diff
 - python train_script.py
 - error:
 - SyntaxError: invalid syntax -> File "train_script.py", line 188
experiment_name = f"{dataset}-{puzzle_sizes}-{steps}-degree:{degree}-virtnode:{virt_nodes}-
{get_random_string(6)}-{'discrete' if discrete else 'continuous'}-{'random_dropout' if
random_dropout else 'ours_dropout'}-arch-{architecture}" - fstring = f"" supported by python
version > 3.6
 - python3 train_script.py
 - error:
 - ModuleNotFoundError: No module named 'torch_geometric': File "train_script.py", line
5, in import torch_geometric
 - pip install torch_geometric
 - ModuleNotFoundError: No module named 'torch'
 - pip install torch
 - ModuleNotFoundError: No module named 'pytorch_lightning'
 - pip install pytorch_lightning
 - AttributeError: module 'numpy' has no attribute 'typeDict'
 - introduced in numpy version 1.0.0, deprecated in numpy version 1.20.0, removed
numpy in version 1.24.0
 - numpy.typedict didn't provide efficient results with structured arrays, subarrays
and other such numpy features.
 - numpy.sctypeDict has been introduced as an alternative to the typedict attribute.
 - reference: <https://www.pythonpool.com/fixed-module-numpy-has-no-attribute-typedict/>
 - check numpy version: - only show numpy: pip show numpy -> Name: numpy
Version: 1.24.4 - show all python packages: pip list - using python code

```
In [1]: import numpy
print(numpy.__version__)

1.26.3

- scipy old version caused:
- upgrade version: python3 -m pip install --upgrade scipy => version
1.3.3 -> 1.10.1
- ModuleNotFoundError: No module named 'torchvision'
- pip install torchvision
- ModuleNotFoundError: No module named 'trimesh'
- to be continued
```

- jupyter notebook: path-same root with puzzle_diff
 - code:

```
In [ ]: %run puzzle_diff/train_script.py

- error:
- No module named 'torch_geometric'
- code: pip install torch_geometric
- error:
- Permission denied
```

```
In [2]: import pytorch_lightning as pl
```

```
In [6]:
```

Python 3.8.10

aiohappyeyeballs 2.4.4 aiohttp 3.10.11 aiosignal 1.3.1 appdirs 1.4.3 async-timeout 5.0.1 attrs 19.3.0 Automat 0.8.0 blessings 1.7 blinker 1.4 certifi 2019.11.28 chardet 3.0.4 Click 7.0 cloud-init 24.4.1 ClusterShell 1.8.3 colorama 0.4.3 command-not-found 0.3 configobj 5.0.6 constantly 15.1.0 cryptography 2.8 cupshelpers 1.0 cyclcr 0.10.0 dbus-python 1.2.16 decorator 4.4.2 defer 1.0.6 distlib 0.3.0 distro 1.4.0 distro-info 0.23+ubuntu1.1 entrypoints 0.3 filelock 3.0.12 frozenlist 1.5.0 fsspec 2025.3.0 GDAL 3.0.4 gpustat 0.4.1 greenlet 0.4.15 httplib2 0.14.0 hyperlink 19.0.0 idna 2.8 importlib-metadata 1.5.0 incremental 16.10.1 iotop 0.6 Jinja2 2.10.1 jsonpatch 1.22 jsonpointer 2.0 jsonschema 3.2.0 keyring 18.0.1 kiwisolver 1.0.1 language-selector 0.1 launchpadlib 1.10.13 lazr.restfulclient 0.14.2 lazr.uri 1.0.3 lightning-utilities 0.11.9 macaroonbakery 1.3.1 Mako 1.1.0 Markdown 3.1.1 MarkupSafe 1.1.0 matplotlib 3.1.2 more-itertools 4.2.0 mpmath 1.3.0 msgpack 0.6.2 multidict 6.1.0 netifaces 0.10.4 networkx 3.1 numpy 1.24.4 nvidia-cublas-cu12 12.1.3.1 nvidia-cuda-cupti-cu12 12.1.105 nvidia-cuda-nvrtc-cu12 12.1.105 nvidia-cuda-runtime-cu12 12.1.105 nvidia-cudnn-cu12 9.1.0.70 nvidia-cufft-cu12 11.0.2.54 nvidia-curand-cu12 10.3.2.106 nvidia-cusolver-cu12 11.4.5.107 nvidia-cuspars-cu12 12.1.0.106 nvidia-ml-py 7.352.0 nvidia-ml-py3 7.352.0 nvidia-nccl-cu12 2.20.5 nvidia-nvjitlink-cu12 12.9.86 nvidia-nvtx-cu12 12.1.105 oauthlib 3.1.0 olefile 0.46 packaging 20.3 pexpect 4.6.0 Pillow 7.0.0 pip 20.0.2 propcache 0.2.0 protobuf 3.6.1 psutil 5.9.0 pyasn1 0.4.2 pyasn1-modules 0.2.1 pycairo 1.16.2 pycups 1.9.73 Pygments 2.3.1 PyGObject 3.36.0 PyHamcrest 1.9.0 PyJWT 1.7.1 pymacaroons 0.13.0 PyNaCl 1.3.0 pynvim 0.4.1 pyOpenSSL 19.0.0 pyparsing 2.4.6 pyRFC3339 1.1 pypersistent 0.15.5 pyserial 3.4 python-apt 2.0.1+ubuntu0.20.4.1 python-dateutil 2.7.3 python-debian 0.1.36+ubuntu1.1 pytorch-lightning 2.4.0 pytz 2019.3 PyYAML 6.0.2 requests 2.22.0 requests-unixsocket 0.2.0 scipy 1.10.1 screen-resolution-extra 0.0.0 SecretStorage 2.3.1 service-identity 18.1.0 setuptools 45.2.0 simplejson 3.16.0 six 1.14.0 sos 4.7.2 ssh-import-id 5.10 sympy 1.13.3 systemd-python 234 torch 2.4.1 torch-geometric 2.6.1 torchmetrics 1.5.2 torchvision 0.19.1 tqdm 4.67.1 triton 3.0.0 Twisted 18.9.0 typing-extensions 4.13.2 ubuntu-pro-client 8001 ufw 0.36 unattended-upgrades 0.1 urllib3 1.25.8 virtualenv 20.0.17 wadllib 1.3.3 wheel 0.34.2 xkit 0.0.0 yarl 1.15.2 zipp 1.0.0 zope.interface 4.7.1