

<Maxwell>

1. High performance desktop for Ivan's team (in 2017)
2. IP address: 203.247.189.166
3. Specification
 - CPU: Intel Xeon E5-2680, 35 MB Cache, 2.4 GHz, 28 Cores
 - Memory: 512GB RDIMM (32GB * 16ea)
 - OS: Ubuntu 20.04
 - Disk information: 12TB HDD storage
4. How to access and use

You can access to Maxwell by the command as below.

\$ ssh -XCY -p 4022 username@maxwell.ibs.re.kr

Applications installed are as below.

```
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-----  Installed Programs or Libraries  -----  
-----  
gcc 9.4.0
```

MATLAB R2020b, Mathematica 12.2

\$ pip3 -V

pip 20.0.2 from /usr/lib/python3/dist-packages/pip (python 3.8)

\$ pip3 list

Package	Version
attrs	19.3.0
Automat	0.8.0
blinker	1.4
certifi	2019.11.28
chardet	3.0.4
Click	7.0
cloud-init	22.2
colorama	0.4.3
command-not-found	0.3
configobj	5.0.6
constantly	15.1.0
cryptography	2.8
cupshelpers	1.0
cycler	0.11.0
dbus-python	1.2.16
defer	1.0.6
distro	1.4.0
distro-info	0.23ubuntu1
entrypoints	0.3

fonttools	4.33.3
httplib2	0.14.0
hyperlink	19.0.0
idna	2.8
importlib-metadata	1.5.0
incremental	16.10.1
Jinja2	2.10.1
jsonpatch	1.22
jsonpointer	2.0
jsonschema	3.2.0
keyring	18.0.1
kiwisolver	1.4.3
language-selector	0.1
launchpadlib	1.10.13
lazr.restfulclient	0.14.2
lazr.uri	1.0.3
macaroonbakery	1.3.1
MarkupSafe	1.1.0
matplotlib	3.5.2
more-itertools	4.2.0
netifaces	0.10.4
numpy	1.23.0
oauthlib	3.1.0
packaging	21.3
pexpect	4.6.0
Pillow	9.2.0
pip	20.0.2
protobuf	3.6.1
pyasn1	0.4.2
pyasn1-modules	0.2.1
pycairo	1.16.2
pycups	1.9.73
PyGObject	3.36.0
PyHamcrest	1.9.0
PyJWT	1.7.1
pymacaroons	0.13.0
PyNaCl	1.3.0
pyOpenSSL	19.0.0
pyparsing	3.0.9
pyRFC3339	1.1
pyrsistent	0.15.5
pyserial	3.4
python-apt	2.0.0+ubuntu0.20.4.7
python-dateutil	2.8.2

python-debian	0.1.36ubuntu1
pytz	2019.3
PyYAML	5.3.1
qutip	4.7.0
requests	2.22.0
requests-unixsocket	0.2.0
scipy	1.8.1
SecretStorage	2.3.1
service-identity	18.1.0
setuptools	45.2.0
simplejson	3.16.0
six	1.14.0
sos	4.2
ssh-import-id	5.10
systemd-python	234
Twisted	18.9.0
ubuntu-advantage-tools	27.6
ufw	0.36
unattended-upgrades	0.1
urllib3	1.25.8
wadllib	1.3.3
wheel	0.34.2
zipp	1.0.0
zope.interface	4.7.1

```

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## Environments module command
$ module list , av , load , purge , unload , swap
=====

### intelOneAPI version 2022.0.2 ###
$ module list ; default : No Modulefiles Currently Loaded.
$ module purge && module load intel/compiler/latest intel/mkl/latest intel/mpi/latest
$ which icc && which mpiicc && which ifort
=====

## python /opt/python/3.6.9 /opt/python/3.7.9 /opt/python/3.9.6
$ module av
$ module load python/3.9.6
$ module swap python/3.9.6 python/3.7.9
$ python -V
$ pip3 -V
=====

## conda /opt/anaconda3 installed , conda env list ##
$ which conda
/opt/anaconda3/condabin/conda
$ conda env list && conda create -n myenv && conda activate myenv && conda deactivate
=====

### matlab/R2020b mathematica/12.2
$ which matlab
/usr/local/bin/matlab
$ matlab &
$ which mathematica
/usr/local/bin/mathematica
$ mathematica &
#####

```

```
[root@maxwell:~]# module avail
```

```
----- /usr/share/modules/modulefiles -----
dot                               intel/dev-utilities/2021.5.2  intel/init_opencil/latest      intel/oclfpfga/2022.0.2
intel/advisor/2022.0.0           intel/dev-utilities/latest    intel/inspector/2022.0.0       intel/oclfpfga/latest
intel/advisor/latest             intel/dnnl-cpu-gomp/2022.0.2  intel/inspector/latest        intel/tbb/2021.5.1
intel/ccl/2021.5.1               intel/dnnl-cpu-gomp/latest     intel/intel_ipp_ia32/2021.5.2  intel/tbb/latest
intel/ccl/latest                 intel/dnnl-cpu-iomp/2022.0.2  intel/intel_ipp_ia32/latest    intel/tbb32/2021.5.1
intel/clck/2021.5.0              intel/dnnl-cpu-iomp/latest     intel/intel_ipp_intel64/2021.5.2 intel/tbb32/latest
intel/clck/latest                intel/dnnl-cpu-tbb/2022.0.2   intel/intel_ipp_intel64/latest  intel/vpl/2022.0.0
intel/compiler-rt/2022.0.2        intel/dnnl-cpu-tbb/latest      intel/intel_ippcp_ia32/2021.5.1 intel/vpl/latest
intel/compiler-rt/latest          intel/dnnl/2022.0.2           intel/intel_ippcp_ia32/latest  intel/vtune/2022.0.0
intel/compiler-rt32/2022.0.2      intel/dnnl/latest             intel/intel_ippcp_intel64/2021.5.1 intel/vtune/latest
intel/compiler-rt32/latest        intel/dpct/2022.0.0           intel/intel_ippcp_intel64/latest module-git
intel/compiler/2022.0.2           intel/dpct/latest             intel/itac/2021.5.0           module-info
intel/compiler/latest            intel/dpl/2021.6.0            intel/itac/latest            modules
intel/compiler32/2022.0.2         intel/dpl/latest              intel/mkl/2022.0.2            null
intel/compiler32/latest          intel/icc/2022.0.2            intel/mkl/latest              python/3.6.9
intel/dal/2021.5.3               intel/icc/latest              intel/mkl32/2022.0.2          python/3.7.9
intel/dal/latest                 intel/icc32/2022.0.2          intel/mkl32/latest            python/3.9.6
intel/debugger/2021.5.0           intel/icc32/latest            intel/mpi/2021.5.1            use.own
intel/debugger/latest            intel/init_opencil/2022.0.2   intel/mpi/latest
```

```
----- /usr/share/modules/modulefiles/intel -----
advisor/2022.0.0                 dal/2021.5.3                  dpct/2022.0.0                 intel_ipp_intel64/2021.5.2    oclfpfga/2022.0.2
advisor/latest                   dal/latest                    dpct/latest                   intel_ipp_intel64/latest      oclfpfga/latest
ccl/2021.5.1                     debugger/2021.5.0             dpl/2021.6.0                 intel_ippcp_ia32/2021.5.1    tbb/2021.5.1
ccl/latest                       debugger/latest               dpl/latest                    intel_ippcp_ia32/latest      tbb/latest
clck/2021.5.0                    dev-utilities/2021.5.2        icc/2022.0.2                 intel_ippcp_intel64/2021.5.1 tbb32/2021.5.1
clck/latest                      dev-utilities/latest          icc/latest                    intel_ippcp_intel64/latest    tbb32/latest
compiler-rt/2022.0.2             dnnl-cpu-gomp/2022.0.2        icc32/2022.0.2               itac/2021.5.0               vpl/2022.0.0
compiler-rt/latest               dnnl-cpu-gomp/latest          icc32/latest                  itac/latest                  vpl/latest
compiler-rt32/2022.0.2          dnnl-cpu-iomp/2022.0.2        init_opencil/2022.0.2        mkl/2022.0.2                vtune/2022.0.0
compiler-rt32/latest             dnnl-cpu-iomp/latest          init_opencil/latest           mkl/latest                   vtune/latest
compiler/2022.0.2                dnnl-cpu-tbb/2022.0.2        inspector/2022.0.0           mkl32/2022.0.2              mpi/2021.5.1
compiler/latest                  dnnl-cpu-tbb/latest           inspector/latest              mkl32/latest                 mpi/latest
compiler32/2022.0.2             dnnl/2022.0.2                intel_ipp_ia32/2021.5.2      mpi/latest
```