

A non-exhaustive list of Python modules and packages in each conda environment is shown below. The preferred channel is "intel" where possible, followed by "bioconda". Users will want to ensure that their required modules appear within the same environment for convenience, unless this is made impossible by Python version or other incompatibility.

Output produced on 29 May 2020.

```

===== idppy3 =====
cython                0.28.2                py36_intel_4 [intel] intel
intelpython           2018.0.3              0 intel
ipython               6.3.1                 py36_intel_1 [intel] intel
jupyter               1.0.0                 py36_intel_5 [intel] intel
matplotlib            2.2.2                 np114py36_intel_1 [intel] intel
numpy                 1.14.3                py36_intel_0 [intel] intel
pandas                0.22.0                np114py36_intel_4 [intel] intel
python                3.6.3                 intel_12 [intel] intel
scikit-learn          0.19.1                np114py36_intel_29 [intel]
intel
scipy                 1.0.1                 np114py36_intel_3 [intel] intel
tensorflow            1.3.1                 np114py36_5 intel
theano                1.1                   py36_intel_4 [intel] intel
xgboost               0.7                   py36_0 intel
===== idppy2 =====
cython                0.28.2                py27_intel_4 [intel] intel
intelpython           2018.0.3              0 intel
ipython               5.6.0                 py27_intel_0 [intel] intel
jupyter               1.0.0                 py27_intel_5 [intel] intel
matplotlib            2.2.2                 np114py27_intel_1 [intel] intel
numpy                 1.14.3                py27_intel_0 [intel] intel
pandas                0.22.0                np114py27_intel_4 [intel] intel
python                2.7.14                intel_6 [intel] intel
scikit-learn          0.19.1                np114py27_intel_29 [intel]
intel
scipy                 1.0.1                 np114py27_intel_3 [intel] intel
tensorflow            1.3.1                 np114py27_5 intel
theano                1.1                   py27_intel_4 [intel] intel
xgboost               0.7                   py27_0 intel
===== ipy3nopypirev1 =====
_pytorch_select       0.2                   gpu_0
biopython              1.76                  py36h516909a_0 conda-forge
cython                 0.28.2                py36_intel_4 [intel] intel
intelpython           2018.0.3              0 intel
matplotlib            2.2.2                 np114py36_intel_1 [intel] intel
numpy                 1.14.3                py36_intel_0 [intel] intel
pandas                0.22.0                np114py36_intel_4 [intel] intel
pybigwig              0.3.12                py36hdfb72b2_0 bioconda
python                3.6.3                 intel_12 [intel] intel
pytorch               1.3.1                 cuda100py36h53c1284_0
pyvcf                 0.6.8                 py36h9f0ad1d_1001 conda-forge
razers3               3.5.3                 h21aa3a5_2 bioconda
samtools              1.9                   h46bd0b3_0 bioconda
scikit-learn          0.19.1                np114py36_intel_29 [intel]
intel
scipy                 1.0.1                 np114py36_intel_3 [intel] intel
seaborn               0.10.0                py_0 conda-forge
sequenza-utils        3.0.0                 py36h831f99a_1 bioconda
snpeff                4.5covid19            1 bioconda
snpsift               4.3.1t                2 bioconda
statsmodels           0.9.0                 py36h3010b51_1000 conda-forge
texlive-core          20180414              hc8d0b01_0

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===== ipy3pypirev1 =====
_pytorch_select      0.2                gpu_0
biopython            1.76             py36h516909a_0  conda-forge
cython               0.28.2          py36_intel_4    [intel] intel
intelpython          2018.0.3        0               intel
labkey               1.2.0           pypi_0          pypi
matplotlib           3.2.1           pypi_0          pypi
numpy                1.18.4          pypi_0          pypi
opencv-python        4.2.0.34        pypi_0          pypi
pandas               1.0.3           pypi_0          pypi
pybigwig             0.3.12         py36hdfb72b2_0  bioconda
python               3.6.3           intel_12        [intel] intel
pytorch              1.3.1           cuda100py36h53c1284_0
pyvcf                0.6.8           py36h9f0ad1d_1001  conda-forge
razers3              3.5.3           h21aa3a5_2      bioconda
samtools             1.9             h46bd0b3_0      bioconda
scikit-learn         0.23.0          pypi_0          pypi
scipy                1.4.1           pypi_0          pypi
seaborn              0.10.0          py_0            conda-forge
sequenza-utils       3.0.0           py36h831f99a_1   bioconda
sigprofilerextractor 1.0.9           pypi_0          pypi
sigprofilermatrixgenerator 1.1.15        pypi_0          pypi
sigprofilerplotting 1.1.6           pypi_0          pypi
sigprofilersimulator 1.0.3           pypi_0          pypi
snpeff               4.5covid19     1               bioconda
snpsift              4.3.1t         2               bioconda
statsmodels          0.11.1          pypi_0          pypi
svtk                 0.1.0           pypi_0          pypi
texlive-core         20180414        hc8d0b01_0
torch                1.5.0           pypi_0          pypi
===== ipy3nopypi =====
_pytorch_select      0.2                gpu_0
biopython            1.76             py36h516909a_0  conda-forge
cython               0.28.2          py36_intel_4    [intel] intel
intelpython          2018.0.3        0               intel
matplotlib           2.2.2           np114py36_intel_1 [intel] intel
numpy                1.14.3          py36_intel_0    [intel] intel
pandas               0.22.0          np114py36_intel_4 [intel] intel
pybigwig             0.3.12         py36hdfb72b2_0  bioconda
python               3.6.3           intel_12        [intel] intel
pytorch              1.3.1           cuda100py36h53c1284_0
pyvcf                0.6.8           py36h9f0ad1d_1001  conda-forge
razers3              3.5.3           h21aa3a5_2      bioconda
samtools             1.9             h46bd0b3_0      bioconda
scikit-learn         0.19.1          np114py36_intel_29 [intel]
intel
scipy                1.0.1           np114py36_intel_3 [intel] intel
seaborn              0.10.0          py_0            conda-forge
sequenza-utils       3.0.0           py36hf484d3e_0   bioconda
statsmodels          0.9.0           py36h3010b51_1000  conda-forge
===== ipy3pypi =====
_pytorch_select      0.2                gpu_0
biopython            1.76             py36h516909a_0  conda-forge
cython               0.28.2          py36_intel_4    [intel] intel
intelpython          2018.0.3        0               intel
labkey               1.2.0           pypi_0          pypi
matplotlib           3.2.1           pypi_0          pypi
numpy                1.18.3          pypi_0          pypi
opencv-python        4.2.0.34        pypi_0          pypi
pandas               1.0.3           pypi_0          pypi
pybigwig             0.3.12         py36hdfb72b2_0  bioconda

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|                            |              |                       |            |             |
|----------------------------|--------------|-----------------------|------------|-------------|
| python                     | 3.6.3        | intel_12              | [intel]    | intel       |
| pytorch                    | 1.3.1        | cuda100py36h53c1284_0 |            |             |
| pyvcf                      | 0.6.8        | py36h9f0ad1d_1001     |            | conda-forge |
| razers3                    | 3.5.3        | h21aa3a5_2            |            | bioconda    |
| samtools                   | 1.9          | h46bd0b3_0            |            | bioconda    |
| scikit-learn               | 0.22.2.post1 | py_0                  |            | pypi        |
| scipy                      | 1.4.1        | py_0                  |            | pypi        |
| seaborn                    | 0.10.0       | py_0                  |            | conda-forge |
| sequenza-utils             | 3.0.0        | py36hf484d3e_0        |            | bioconda    |
| sigprofilerextractor       | 1.0.9        | py_0                  |            | pypi        |
| sigprofilermatrixgenerator | 1.1.14       | py_0                  |            | pypi        |
| sigprofilerplotting        | 1.1.6        | py_0                  |            | pypi        |
| sigprofilersimulator       | 1.0.1        | py_0                  |            | pypi        |
| statsmodels                | 0.11.1       | py_0                  |            | pypi        |
| svtk                       | 0.1.0        | py_0                  |            | pypi        |
| torch                      | 1.5.0        | py_0                  |            | pypi        |
| ===== ipy3tf2 =====        |              |                       |            |             |
| intelpython                | 2020.1       |                       | 0          | intel       |
| keras-applications         | 1.0.8        |                       | py_1       | conda-forge |
| keras-preprocessing        | 1.1.0        |                       | py_0       | conda-forge |
| numpy                      | 1.17.5       | py37ha68da19_1        |            | intel       |
| numpy-base                 | 1.17.5       |                       | py37_1     | intel       |
| python                     | 3.7.7        |                       | hf484d3e_0 | intel       |
| scipy                      | 1.4.1        | py37ha3d9a3c_3        |            | conda-forge |
| tensorflow                 | 2.1.0        |                       | py37_0     | intel       |
| tensorflow-base            | 2.1.0        |                       |            | intel       |
| tensorflow-estimator       | 2.1.0        | pyhd54b08b_0          |            |             |
| ===== ipy3keras =====      |              |                       |            |             |
| intelpython                | 2020.1       |                       | 0          | intel       |
| keras                      | 2.3.1        |                       | py37_0     | conda-forge |
| keras-applications         | 1.0.8        |                       | py_1       | conda-forge |
| keras-preprocessing        | 1.1.0        |                       | py_0       | conda-forge |
| numpy                      | 1.17.5       | py37ha68da19_1        |            | intel       |
| numpy-base                 | 1.17.5       |                       | py37_1     | intel       |
| python                     | 3.7.7        |                       | hf484d3e_0 | intel       |
| scipy                      | 1.3.3        | py37ha68da19_2        |            | intel       |
| tensorflow                 | 2.0.1        |                       | py37_0     | intel       |
| tensorflow-estimator       | 1.14.0       | py37h5ca1d4c_0        |            | conda-forge |
| theano                     | 1.0.4        | py37he1b5a44_1001     |            | conda-forge |
| ===== ipy3mavis =====      |              |                       |            |             |
| biopython                  | 1.76         | py37h516909a_0        |            | conda-forge |
| intelpython                | 2020.1       |                       | 0          | intel       |
| mavis                      | 2.2.6        |                       | py_0       | bioconda    |
| numpy                      | 1.17.5       | py37ha68da19_1        |            | intel       |
| numpy-base                 | 1.17.5       |                       | py37_1     | intel       |
| pysam                      | 0.15.4       | py37hbcae180_0        |            | bioconda    |
| python                     | 3.7.7        |                       | hf484d3e_0 | intel       |
| pyvcf                      | 0.6.8        | py37hc8dfbb8_1001     |            | conda-forge |
| ===== py3nopypirev1 =====  |              |                       |            |             |
| _pytorch_select            | 0.2          |                       | gpu_0      |             |
| biopython                  | 1.76         | py37h516909a_0        |            | conda-forge |
| cython                     | 0.29.19      | py37h3340039_0        |            | conda-forge |
| keras                      | 2.3.1        |                       | py37_0     | conda-forge |
| keras-applications         | 1.0.8        |                       | py_1       | conda-forge |
| keras-preprocessing        | 1.1.0        |                       | py_0       | conda-forge |
| matplotlib                 | 3.2.1        |                       | 0          | conda-forge |
| matplotlib-base            | 3.2.1        | py37h30547a4_0        |            | conda-forge |
| numpy                      | 1.18.4       | py37h8960a57_0        |            | conda-forge |
| pandas                     | 1.0.3        | py37h0da4684_1        |            | conda-forge |
| pybigwig                   | 0.3.17       | py37hfb91e9a_1        |            | bioconda    |
| pysam                      | 0.15.3       | py37hbcae180_3        |            | bioconda    |

|                                    |              |                       |             |
|------------------------------------|--------------|-----------------------|-------------|
| python                             | 3.7.6        | h8356626_5_cpython    | conda-forge |
| pytorch                            | 1.4.0        | cuda101py37h02f0884_0 |             |
| pyvcf                              | 0.6.8        | py37hc8dfbb8_1001     | conda-forge |
| razers3                            | 3.5.3        | hb7ba0dd_3            | bioconda    |
| samtools                           | 1.10         | h9402c20_2            | bioconda    |
| scikit-learn                       | 0.23.1       | py37h8a51577_0        | conda-forge |
| scipy                              | 1.4.1        | py37ha3d9a3c_3        | conda-forge |
| seaborn                            | 0.10.1       | py_0                  | conda-forge |
| sequenza-utils                     | 3.0.0        | py37h3340039_1        | bioconda    |
| spliceai                           | 1.3.1        | py_0                  | bioconda    |
| statsmodels                        | 0.11.1       | py37h8f50634_1        | conda-forge |
| tensorflow                         | 1.13.1       | py37h90a7d86_1        | conda-forge |
| tensorflow-estimator               | 1.13.0       | py_0                  |             |
| theano                             | 1.0.3        | py37hfc679d8_1        | conda-forge |
| = = = = = py3nopypi = = = = =      |              |                       |             |
| _pytorch_select                    | 0.2          | gpu_0                 |             |
| biopython                          | 1.76         | py37h516909a_0        | conda-forge |
| cython                             | 0.29.17      | py37h3340039_0        | conda-forge |
| matplotlib                         | 3.2.1        | _0                    | conda-forge |
| matplotlib-base                    | 3.2.1        | py37h30547a4_0        | conda-forge |
| numpy                              | 1.18.4       | py37h8960a57_0        | conda-forge |
| pandas                             | 1.0.3        | py37h0da4684_1        | conda-forge |
| pybigwig                           | 0.3.17       | py37hfb91e9a_1        | bioconda    |
| python                             | 3.7.6        | h8356626_5_cpython    | conda-forge |
| pytorch                            | 1.4.0        | cuda101py37h02f0884_0 |             |
| pyvcf                              | 0.6.8        | py37hc8dfbb8_1001     | conda-forge |
| razers3                            | 3.5.3        | hb7ba0dd_3            | bioconda    |
| samtools                           | 1.10         | h9402c20_2            | bioconda    |
| scikit-learn                       | 0.22.2.post1 | py37hcdab131_0        | conda-forge |
| scipy                              | 1.4.1        | py37ha3d9a3c_3        | conda-forge |
| seaborn                            | 0.10.1       | py_0                  | conda-forge |
| sequenza-utils                     | 3.0.0        | py37h3340039_1        | bioconda    |
| statsmodels                        | 0.11.1       | py37h8f50634_1        | conda-forge |
| = = = = = py3pypi = = = = =        |              |                       |             |
| _pytorch_select                    | 0.2          | gpu_0                 |             |
| biopython                          | 1.76         | py37h516909a_0        | conda-forge |
| cython                             | 0.29.17      | py37h3340039_0        | conda-forge |
| labkey                             | 1.2.0        | pypi_0                | pypi        |
| matplotlib                         | 3.2.1        | _0                    | conda-forge |
| matplotlib-base                    | 3.2.1        | py37h30547a4_0        | conda-forge |
| numpy                              | 1.18.4       | py37h8960a57_0        | conda-forge |
| opencv-python                      | 4.2.0.34     | pypi_0                | pypi        |
| pandas                             | 1.0.3        | py37h0da4684_1        | conda-forge |
| pybigwig                           | 0.3.17       | py37hfb91e9a_1        | bioconda    |
| python                             | 3.7.6        | h8356626_5_cpython    | conda-forge |
| pytorch                            | 1.4.0        | cuda101py37h02f0884_0 |             |
| pyvcf                              | 0.6.8        | py37hc8dfbb8_1001     | conda-forge |
| razers3                            | 3.5.3        | hb7ba0dd_3            | bioconda    |
| samtools                           | 1.10         | h9402c20_2            | bioconda    |
| scikit-learn                       | 0.22.2.post1 | py37hcdab131_0        | conda-forge |
| scipy                              | 1.4.1        | py37ha3d9a3c_3        | conda-forge |
| seaborn                            | 0.10.1       | py_0                  | conda-forge |
| sequenza-utils                     | 3.0.0        | py37h3340039_1        | bioconda    |
| sigproflerextractor                | 1.0.9        | pypi_0                | pypi        |
| sigproflermatrixgenerator          | 1.1.15       | pypi_0                | pypi        |
| sigproflerplotting                 | 1.1.6        | pypi_0                | pypi        |
| sigproflersimulator                | 1.0.3        | pypi_0                | pypi        |
| statsmodels                        | 0.11.1       | py37h8f50634_1        | conda-forge |
| svtk                               | 0.1.0        | pypi_0                | pypi        |
| = = = = = py2_7_12nopypi = = = = = |              |                       |             |
| numpy                              | 1.11.3       | py27he5ce36f_1207     | conda-forge |

|                                 |        |                   |             |
|---------------------------------|--------|-------------------|-------------|
| pandas                          | 0.19.2 | np111py27_1       | conda-forge |
| pysam                           | 0.15.4 | py27hbcae180_0    | bioconda    |
| python                          | 2.7.12 | 2                 | conda-forge |
| pyvcf                           | 0.6.8  | py27h8c360ce_1001 | conda-forge |
| razers3                         | 3.5.3  | hb7ba0dd_3        | bioconda    |
| scipy                           | 1.2.1  | py27h09a28d5_1    | conda-forge |
| statsmodels                     | 0.9.0  | py27h3010b51_1000 | conda-forge |
| survivor                        | 1.0.7  | he513fc3_0        | bioconda    |
| svtools                         | 0.5.1  | py_0              | bioconda    |
| svtyper                         | 0.7.1  | py_0              | bioconda    |
| ===== py2_7_12pypi =====        |        |                   |             |
| labkey                          | 1.2.0  | pypi_0            | pypi        |
| numpy                           | 1.11.3 | py27he5ce36f_1207 | conda-forge |
| pandas                          | 0.19.2 | np111py27_1       | conda-forge |
| pysam                           | 0.15.4 | py27hbcae180_0    | bioconda    |
| python                          | 2.7.12 | 2                 | conda-forge |
| pyvcf                           | 0.6.8  | py27h8c360ce_1001 | conda-forge |
| razers3                         | 3.5.3  | hb7ba0dd_3        | bioconda    |
| scipy                           | 1.2.1  | py27h09a28d5_1    | conda-forge |
| statsmodels                     | 0.9.0  | py27h3010b51_1000 | conda-forge |
| survivor                        | 1.0.7  | he513fc3_0        | bioconda    |
| svtools                         | 0.5.1  | py_0              | bioconda    |
| svtyper                         | 0.7.1  | py_0              | bioconda    |
| ===== idpcorepy3_6_5rev1 =====  |        |                   |             |
| bedtools                        | 2.26.0 | 0                 | bioconda    |
| biopython                       | 1.76   | py36h516909a_0    | conda-forge |
| ensembl-vep                     | 89.4   | htslib1.5_0       | bioconda    |
| intelpython                     | 2019.1 | 0                 | intel       |
| matplotlib                      | 2.2.3  | py36_0            | intel       |
| mavis                           | 2.2.6  | py_0              | bioconda    |
| numpy                           | 1.15.4 | py36_2            | intel       |
| numpy-base                      | 1.15.4 | py36_2            | intel       |
| pandas                          | 0.23.4 | py36_4            | intel       |
| picard                          | 2.15.0 | py36_0            | bioconda    |
| pysam                           | 0.15.4 | py36hbcae180_0    | bioconda    |
| python                          | 3.6.5  | 11                | intel       |
| pyvcf                           | 0.6.8  | py36h9f0ad1d_1001 | conda-forge |
| samblaster                      | 0.1.24 | hc9558a2_3        | bioconda    |
| samtools                        | 1.8    | h46bd0b3_5        | bioconda    |
| scipy                           | 1.1.0  | np115py36_6       | intel       |
| snakemake                       | 5.1.4  | py36_0            | bioconda    |
| vcftools                        | 0.1.15 | he941832_2        | bioconda    |
| ===== idpcorepy2_7_12rev1 ===== |        |                   |             |
| intelpython                     | 2020.1 | 0                 | intel       |
| numpy                           | 1.11.3 | py27he5ce36f_1207 | conda-forge |
| numpy-base                      | 1.16.4 | py27_25           | intel       |
| pandas                          | 0.19.2 | np111py27_1       | conda-forge |
| pysam                           | 0.15.4 | py27hbcae180_0    | bioconda    |
| python                          | 2.7.12 | 2                 | conda-forge |
| razers3                         | 3.5.3  | hb7ba0dd_3        | bioconda    |
| scipy                           | 1.2.1  | py27h09a28d5_1    | conda-forge |
| statsmodels                     | 0.9.0  | py27h3010b51_1000 | conda-forge |
| survivor                        | 1.0.7  | he513fc3_0        | bioconda    |
| svtools                         | 0.5.1  | py_0              | bioconda    |
| svtyper                         | 0.7.1  | py_0              | bioconda    |
| ===== idpcorepy3tf2rev1 =====   |        |                   |             |
| _pytorch_select                 | 0.2    | gpu_0             |             |
| biopython                       | 1.76   | py37h516909a_0    | conda-forge |
| gitpython                       | 3.1.1  | py_0              | conda-forge |
| intelpython                     | 2020.1 | 0                 | intel       |
| ipython                         | 5.8.0  | py37_1            | conda-forge |

|                            |             |                       |             |
|----------------------------|-------------|-----------------------|-------------|
| jupyter                    | 1.0.0       | py_2                  | conda-forge |
| keras                      | 2.3.1       | py37_0                | conda-forge |
| keras-applications         | 1.0.8       | py_1                  | conda-forge |
| keras-preprocessing        | 1.1.0       | py_0                  | conda-forge |
| matplotlib                 | 3.1.2       | py37_3                | intel       |
| matplotlib-base            | 3.1.1       | py37hfd891ef_0        | conda-forge |
| numpy                      | 1.17.5      | py37ha68da19_1        | intel       |
| numpy-base                 | 1.17.5      | py37_1                | intel       |
| opencv-python              | 4.2.0.34    | pypi_0                | pypi        |
| pandas                     | 0.25.3      | py37_4                | intel       |
| pybigwig                   | 0.3.17      | py37hc013797_0        | bioconda    |
| python                     | 3.7.7       | hf484d3e_0            | intel       |
| pytorch                    | 1.4.0       | cuda101py37h02f0884_0 |             |
| pyvcf                      | 0.6.8       | py37hc8dfbb8_1001     | conda-forge |
| razers3                    | 3.5.3       | hb7ba0dd_3            | bioconda    |
| samtools                   | 1.10        | h9402c20_2            | bioconda    |
| scikit-learn               | 0.22.1      | py37ha68da19_9        | intel       |
| scipy                      | 1.3.3       | py37ha68da19_2        | intel       |
| seaborn                    | 0.10.0      | py_1                  | conda-forge |
| sequenza-utils             | 3.0.0       | py37hf484d3e_0        | bioconda    |
| sigprofilerextractor       | 1.0.8       | pypi_0                | pypi        |
| sigprofilermatrixgenerator | 1.1.14      | pypi_0                | pypi        |
| sigprofilerplotting        | 1.1.5       | pypi_0                | pypi        |
| sigprofilersimulator       | 1.0.1       | pypi_0                | pypi        |
| snakemake                  | 5.5.4       | 1                     | bioconda    |
| snakemake-minimal          | 5.5.4       | py_2                  | bioconda    |
| statsmodels                | 0.11.1      | py37h8f50634_1        | conda-forge |
| svtk                       | 0.1.0       | pypi_0                | pypi        |
| tensorflow                 | 2.0.1       | py37_0                | intel       |
| tensorflow-estimator       | 1.14.0      | py37h5ca1d4c_0        | conda-forge |
| theano                     | 1.0.4       | py37he1b5a44_1001     | conda-      |
| forgea44_1001              | conda-forge |                       |             |