| Wydział EAIiIB<br>Kierunek AiR<br>Rok III | Marcin Brzózka<br>nr albumu 405499<br>grupa 2 |
|---|---|
| **Analiza i Bazy Danych** | |
| **Temat:** Lab1. Przygotowanie środowiska do pracy w DS | |

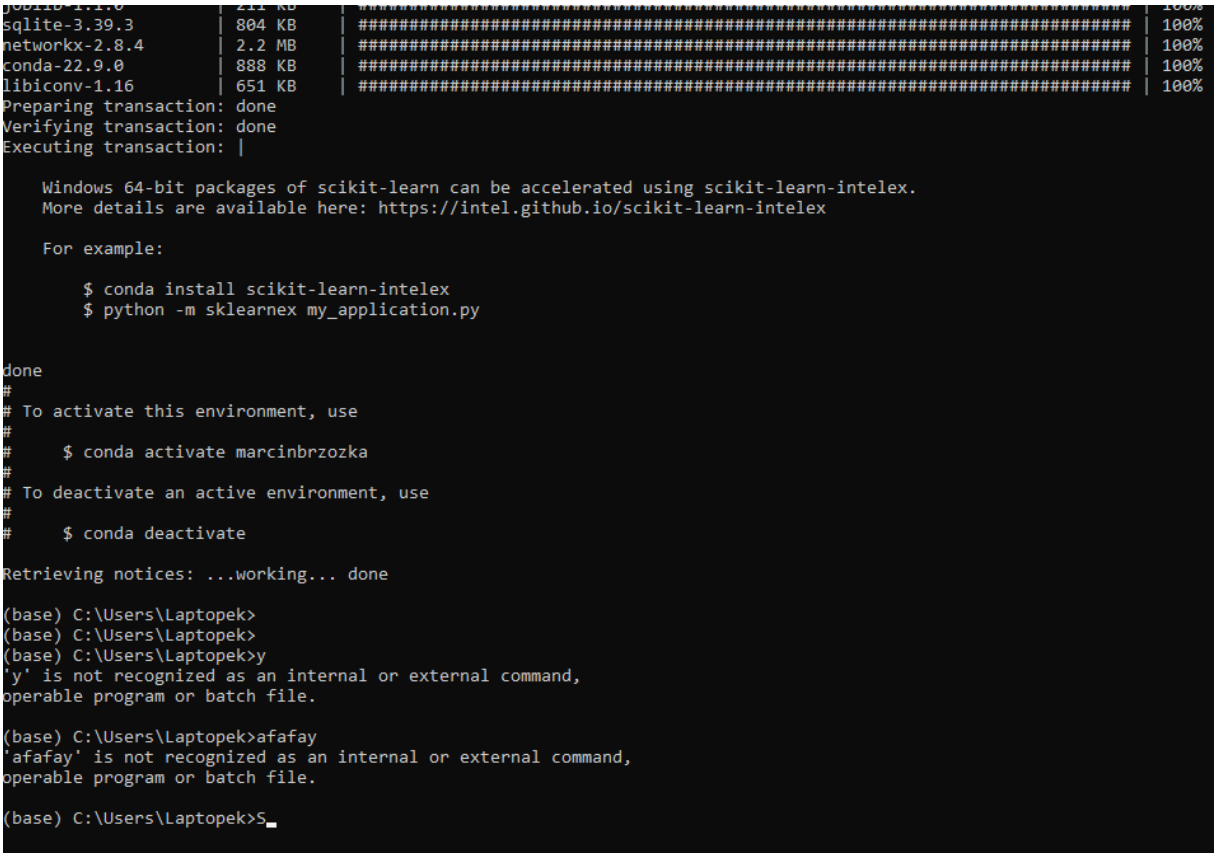
# Zadanie 1

Zainstaluj wirtualne środowisko conda na systemie Ubuntu.

1. Stworzenie środowiska wirtualnego, którego nazwa to imięnazwisko.

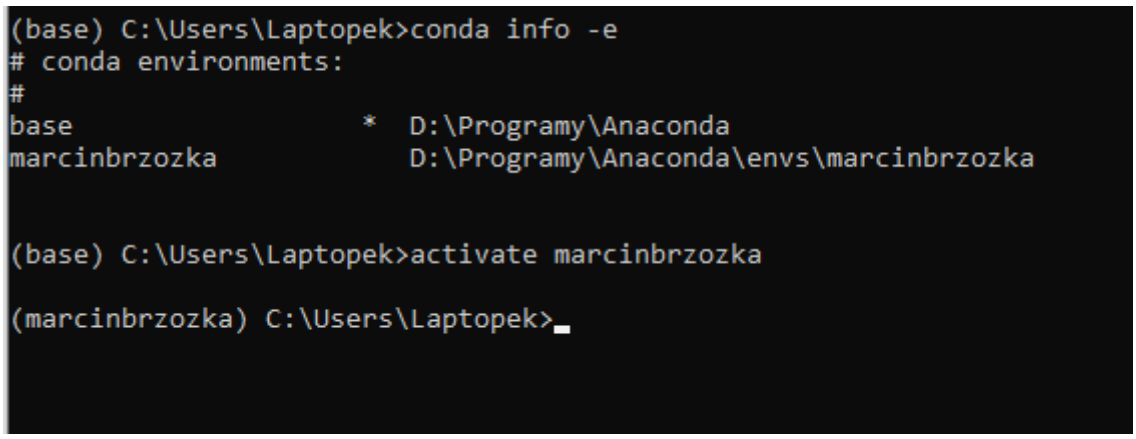
Pierw zaktualizowałem wersję condy oraz wybrałem wersję pythona do stworzenia wirtualnego środowiska. Następnie:

```
(base) C:\Users\Laptopek>conda create -n marcinbrzozka python=3.9.0 anaconda
Collecting package metadata (current_repodata.json): done
Solving environment: failed with repodata from current_repodata.json, will retry with next repodata source.
Collecting package metadata (repodata.json): done
Solving environment: /
Warning: 2 possible package resolutions (only showing differing packages):
  - defaults/win-64::llvmlite-0.36.0-py39h34b8924_4, defaults/win-64::numba-0.53.0-py39hf11a4ad_0, defaults/win-64::
y-1.23.1-py39h7a0a035_0, defaults/win-64::numpy-base-1.23.1-py39hca35cd5_0
  - defaults/win-64::llvmlite-0.38.0-py39h23ce68f_0, defaults/win-64::numba-0.55.1-py39hf11a4ad_0, defaults/win-64::
y-1.21.5-py39h7a0a035_3, defaults/win-64::numpy-base-1.21.5-py39hca35cd5_3done

## Package Plan ##

  environment location: D:\Programy\Anaconda\envs\marcinbrzozka

  added / updated specs:
    - anaconda
    - python=3.9.0


The following packages will be downloaded:

    package                    |            build
    ---------------------------|-----------------
    _anaconda_depends-2021.11  |           py39_0           7 KB
    anaconda-custom            |           py39_1           4 KB
    anaconda-client-1.11.0     |   py39haa95532_0         165 KB
    anaconda-project-0.11.1    |   py39haa95532_0         511 KB
    anyio-3.5.0                |   py39haa95532_0         167 KB
    appdirs-1.4.4              |     pyhd3eb1b0_0          12 KB
    argh-0.26.2                |   py39haa95532_0          36 KB
    argon2-cffi-21.3.0         |     pyhd3eb1b0_0          15 KB
    argon2-cffi-bindings-21.2.0|   py39h2bbff1b_0          36 KB
    arrow-1.2.2                |     pyhd3eb1b0_0          92 KB
    asn1crypto-1.5.1           |   py39haa95532_0         171 KB
    astroid-2.11.7             |   py39haa95532_0         341 KB
    astropy-5.1                |   py39h080aedc_0         6.4 MB
    attrs-21.4.0               |     pyhd3eb1b0_0          51 KB
    autopep8-1.6.0             |     pyhd3eb1b0_1          43 KB
```




*Rys. 1. Instalacja wirtualnego środowiska conda*

2. Aktywacja środowiska wirtualnego.



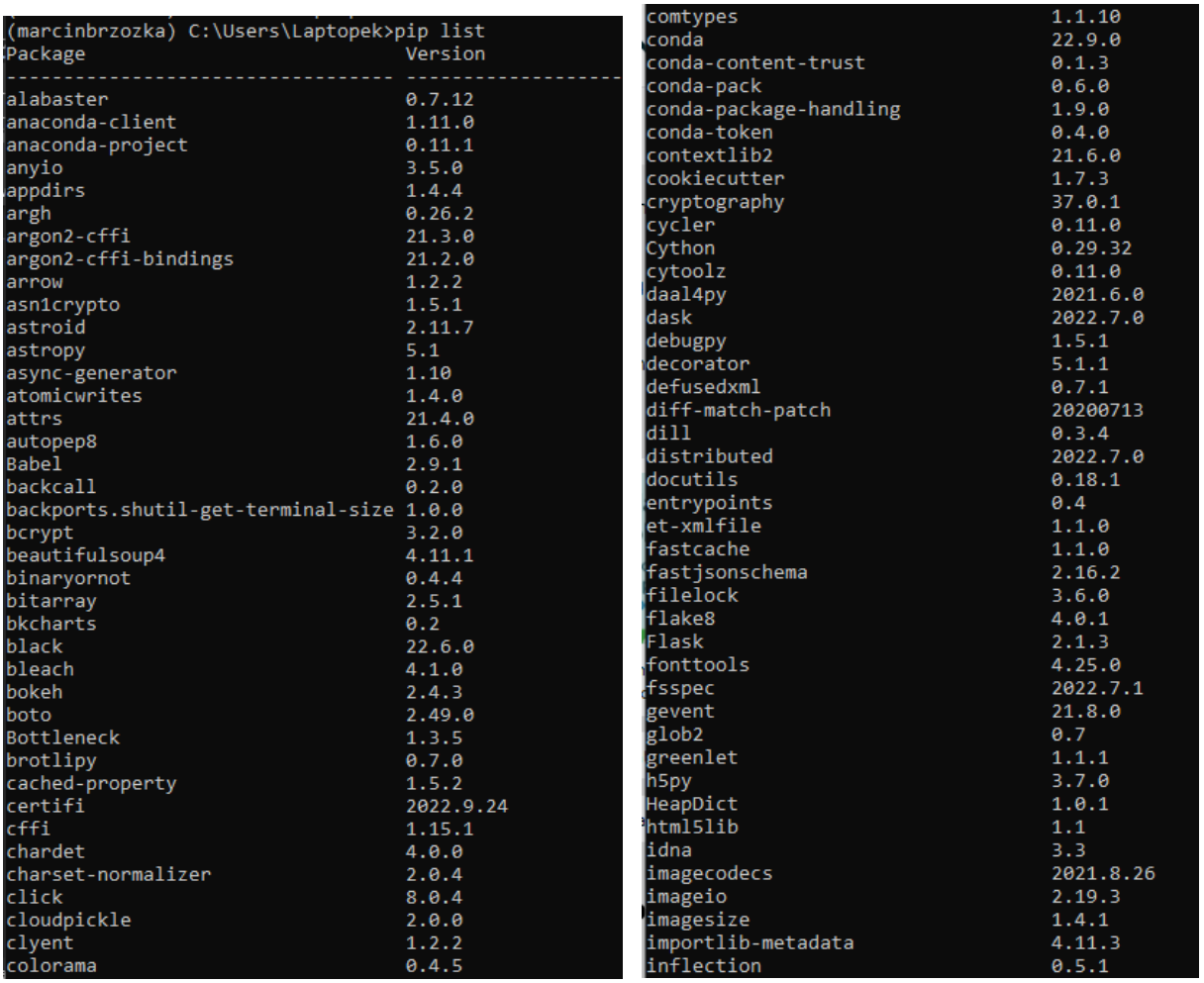

*Rys. 2. Aktywacja środowiska wirtualnego*

3. Instalacja pakietów Python z pliku requirements.txt.

```
(marcinbrzozka) C:\Users\Laptopek>pip install -r D:\Programowanie\AiBD\requirements.txt
Requirement already satisfied: ipython>=4.1.2 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\P
rogramowanie\AiBD\requirements.txt (line 1)) (7.31.1)
Requirement already satisfied: jupyter>=1.0.0 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\P
rogramowanie\AiBD\requirements.txt (line 2)) (1.0.0)
Requirement already satisfied: matplotlib>=1.5.1 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D
:\Programowanie\AiBD\requirements.txt (line 3)) (3.5.2)
Requirement already satisfied: notebook>=4.1.0 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\
Programowanie\AiBD\requirements.txt (line 4)) (6.4.12)
Requirement already satisfied: numpy>=1.10.4 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\Pr
ogramowanie\AiBD\requirements.txt (line 5)) (1.23.1)
Requirement already satisfied: pandas>=0.17.1 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\P
rogramowanie\AiBD\requirements.txt (line 6)) (1.4.4)
Requirement already satisfied: seaborn>=0.7.0 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\P
rogramowanie\AiBD\requirements.txt (line 7)) (0.11.2)
Collecting q>=2.6
  Downloading q-2.7-py2.py3-none-any.whl (10 kB)
Collecting python-dotenv>=0.5.0
  Downloading python_dotenv-0.21.0-py3-none-any.whl (18 kB)
Collecting watermark>=1.3.0
  Downloading watermark-2.3.1-py2.py3-none-any.whl (7.2 kB)
Requirement already satisfied: pytest>=2.9.2 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\Pr
ogramowanie\AiBD\requirements.txt (line 11)) (7.1.2)
Requirement already satisfied: scikit-learn in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\Pro
gramowanie\AiBD\requirements.txt (line 12)) (1.0.2)
rom ipywidgets->jupyter>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (1.0.0)
Requirement already satisfied: widgetsnbextension~=3.5.0 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages
rom ipywidgets->jupyter>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (3.5.2)
Requirement already satisfied: qtpy in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from qtconsole->jupy
r>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (2.2.0)
Requirement already satisfied: pyrsistent!=0.17.0,!=0.17.1,!=0.17.2,>=0.14.0 in d:\programy\anaconda\envs\marcinbrzozk
lib\site-packages (from jsonschema>=2.6->nbformat->notebook>=4.1.0->-r D:\Programowanie\AiBD\requirements.txt (line 4)
(0.18.0)
Requirement already satisfied: cffi>=1.0.1 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from argon2-c
i-bindings->argon2-cffi->notebook>=4.1.0->-r D:\Programowanie\AiBD\requirements.txt (line 4)) (1.15.1)
Requirement already satisfied: soupsieve>1.2 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from beauti
lsoup4->nbconvert->jupyter>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (2.3.1)
Requirement already satisfied: webencodings in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from bleach-
bconvert->jupyter>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (0.5.1)
Requirement already satisfied: pycparser in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from cffi>=1.0.
>argon2-cffi-bindings->argon2-cffi->notebook>=4.1.0->-r D:\Programowanie\AiBD\requirements.txt (line 4)) (2.21)
Installing collected packages: q, python-dotenv, watermark
Successfully installed python-dotenv-0.21.0 q-2.7 watermark-2.3.1
```

*Rys. 3. Instalacja pakietów Python z pliku requirements.txt*

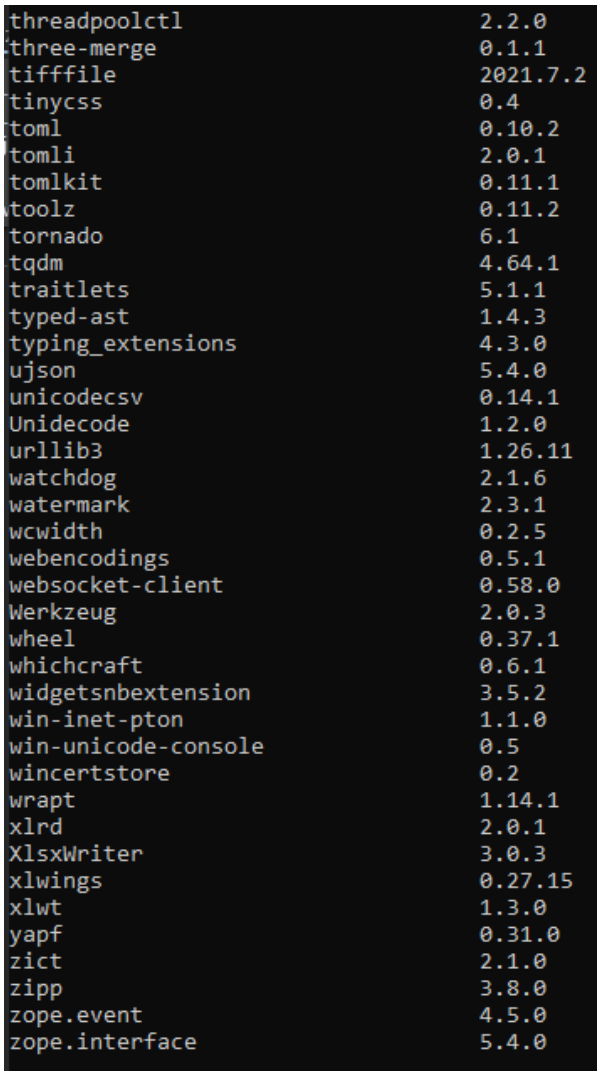
4. Wylistowanie zainstalowanych pakietów.
5. Zrobienie zrzutu ekranu i dodanie do kursu na upel.agh.edu.pl



```
(marcinbrzozka) C:\Users\Laptopek>pip list
Package                           Version
--------------------------------- -------------------
alabaster                         0.7.12
anaconda-client                   1.11.0
anaconda-project                  0.11.1
anyio                             3.5.0
appdirs                           1.4.4
argh                              0.26.2
argon2-cffi                       21.3.0
argon2-cffi-bindings              21.2.0
arrow                             1.2.2
asn1crypto                        1.5.1
astroid                           2.11.7
astropy                           5.1
async-generator                   1.10
atomicwrites                      1.4.0
attrs                             21.4.0
autopep8                          1.6.0
Babel                             2.9.1
backcall                          0.2.0
backports.shutil-get-terminal-size 1.0.0
bcrypt                            3.2.0
beautifulsoup4                    4.11.1
binaryornot                       0.4.4
bitarray                          2.5.1
bkcharts                          0.2
black                             22.6.0
bleach                            4.1.0
bokeh                             2.4.3
boto                              2.49.0
Bottleneck                        1.3.5
brotlipy                          0.7.0
cached-property                   1.5.2
certifi                           2022.9.24
cffi                              1.15.1
chardet                           4.0.0
charset-normalizer                2.0.4
click                             8.0.4
cloudpickle                       2.0.0
clyent                            1.2.2
colorama                          0.4.5
comtypes                          1.1.10
conda                             22.9.0
conda-content-trust               0.1.3
conda-pack                        0.6.0
conda-package-handling            1.9.0
conda-token                       0.4.0
contextlib2                       21.6.0
cookiecutter                      1.7.3
cryptography                      37.0.1
cycler                            0.11.0
Cython                            0.29.32
cytoolz                           0.11.0
daal4py                           2021.6.0
dask                              2022.7.0
debugpy                           1.5.1
decorator                         5.1.1
defusedxml                        0.7.1
diff-match-patch                  20200713
dill                              0.3.4
distributed                       2022.7.0
docutils                          0.18.1
entrypoints                       0.4
et-xmlfile                        1.1.0
fastcache                         1.1.0
fastjsonschema                    2.16.2
filelock                          3.6.0
flake8                            4.0.1
Flask                             2.1.3
fonttools                         4.25.0
fsspec                            2022.7.1
gevent                            21.8.0
glob2                             0.7
greenlet                          1.1.1
h5py                              3.7.0
HeapDict                          1.0.1
html5lib                          1.1
idna                              3.3
imagecodecs                       2021.8.26
imageio                           2.19.3
imagesize                         1.4.1
importlib-metadata                4.11.3
inflection                        0.5.1
```

| | |
|---|---|
| iniconfig | 1.1.1 |
| intervaltree | 3.1.0 |
| ipykernel | 6.15.2 |
| ipython | 7.31.1 |
| ipython-genutils | 0.2.0 |
| ipywidgets | 7.6.5 |
| isort | 5.9.3 |
| itsdangerous | 2.0.1 |
| jdcal | 1.4.1 |
| jedi | 0.18.1 |
| jellyfish | 0.9.0 |
| Jinja2 | 3.0.3 |
| jinja2-time | 0.2.0 |
| joblib | 1.1.0 |
| json5 | 0.9.6 |
| jsonschema | 4.16.0 |
| jupyter | 1.0.0 |
| jupyter_client | 7.3.4 |
| jupyter-console | 6.4.3 |
| jupyter_core | 4.11.1 |
| jupyter-server | 1.18.1 |
| jupyterlab | 3.4.4 |
| jupyterlab-pygments | 0.1.2 |
| jupyterlab_server | 2.15.2 |
| jupyterlab-widgets | 1.0.0 |
| keyring | 23.4.0 |
| kiwisolver | 1.4.2 |
| lazy-object-proxy | 1.6.0 |
| libarchive-c | 2.9 |
| llvmlite | 0.36.0 |
| locket | 1.0.0 |
| lxml | 4.9.1 |
| lz4 | 3.1.3 |
| MarkupSafe | 2.1.1 |
| matplotlib | 3.5.2 |
| matplotlib-inline | 0.1.6 |
| mccabe | 0.6.1 |
| menuinst | 1.4.19 |
| mistune | 0.8.4 |
| mkl-fft | 1.3.1 |
| mkl-random | 1.2.2 |
| mkl-service | 2.4.0 |
| mock | 4.0.3 |
| more-itertools | 8.12.0 |
| mpmath | 1.2.1 |
| msgpack | 1.0.3 |
| multipledispatch | 0.6.0 |
| munkres | 1.1.4 |
| mypy-extensions | 0.4.3 |
| nbclassic | 0.3.5 |
| nbclient | 0.5.13 |
| nbconvert | 6.4.4 |
| nbformat | 5.5.0 |
| nest-asyncio | 1.5.5 |
| networkx | 2.8.4 |
| nltk | 3.7 |
| nose | 1.3.7 |
| notebook | 6.4.12 |
| numba | 0.53.0 |
| numexpr | 2.8.3 |
| numpy | 1.23.1 |
| numpydoc | 1.4.0 |
| olefile | 0.46 |
| openpyxl | 3.0.10 |
| packaging | 21.3 |
| pandas | 1.4.4 |
| pandocfilters | 1.5.0 |
| paramiko | 2.8.1 |
| parso | 0.8.3 |
| partd | 1.2.0 |
| path | 16.2.0 |
| pathlib2 | 2.3.6 |
| pathspec | 0.9.0 |
| patsy | 0.5.2 |
| pep8 | 1.7.1 |
| pexpect | 4.8.0 |
| pickleshare | 0.7.5 |
| Pillow | 9.2.0 |
| pip | 22.2.2 |
| pkginfo | 1.8.2 |
| platformdirs | 2.5.2 |
| pluggy | 1.0.0 |
| ply | 3.11 |

| | |
|---|---|
| poyo | 0.5.0 |
| prometheus-client | 0.14.1 |
| prompt-toolkit | 3.0.20 |
| psutil | 5.9.0 |
| ptyprocess | 0.7.0 |
| py | 1.11.0 |
| pycodestyle | 2.8.0 |
| pycosat | 0.6.3 |
| pycparser | 2.21 |
| pycurl | 7.45.1 |
| pydocstyle | 6.1.1 |
| pyerfa | 2.0.0 |
| pyflakes | 2.4.0 |
| Pygments | 2.11.2 |
| pylint | 2.14.5 |
| pyls-spyder | 0.4.0 |
| PyNaCl | 1.5.0 |
| pyodbc | 4.0.34 |
| pyOpenSSL | 22.0.0 |
| pyparsing | 3.0.9 |
| pyreadline | 2.1 |
| pyrsistent | 0.18.0 |
| PySocks | 1.7.1 |
| pytest | 7.1.2 |
| python-dateutil | 2.8.2 |
| python-dotenv | 0.21.0 |
| python-lsp-black | 1.0.0 |
| python-lsp-jsonrpc | 1.0.0 |
| python-lsp-server | 1.3.3 |
| python-slugify | 5.0.2 |
| pytz | 2022.1 |
| PyWavelets | 1.3.0 |
| pywin32 | 302 |
| pywin32-ctypes | 0.2.0 |
| pywinpty | 2.0.2 |
| PyYAML | 6.0 |
| pyzmq | 23.2.0 |
| q | 2.7 |
| QDarkStyle | 3.0.2 |
| qstylizer | 0.1.10 |
| QtAwesome | 1.0.3 |
| qtconsole | 5.2.2 |
| QtPy | 2.2.0 |
| regex | 2022.7.9 |
| requests | 2.28.1 |
| rope | 0.22.0 |
| Rtree | 0.9.7 |
| ruamel-yaml-conda | 0.15.100 |
| scikit-image | 0.19.2 |
| scikit-learn | 1.0.2 |
| scikit-learn-intelex | 2021.2022100 |
| scipy | 1.9.1 |
| seaborn | 0.11.2 |
| Send2Trash | 1.8.0 |
| setuptools | 63.4.1 |
| simplegeneric | 0.8.1 |
| singledispatch | 3.7.0 |
| sip | 4.19.13 |
| six | 1.16.0 |
| sniffio | 1.2.0 |
| snowballstemmer | 2.2.0 |
| sortedcollections | 2.1.0 |
| sortedcontainers | 2.4.0 |
| soupsieve | 2.3.1 |
| Sphinx | 5.0.2 |
| sphinxcontrib-applehelp | 1.0.2 |
| sphinxcontrib-devhelp | 1.0.2 |
| sphinxcontrib-htmlhelp | 2.0.0 |
| sphinxcontrib-jsmath | 1.0.1 |
| sphinxcontrib-qthelp | 1.0.3 |
| sphinxcontrib-serializinghtml | 1.1.5 |
| sphinxcontrib-websupport | 1.2.4 |
| spyder | 5.2.2 |
| spyder-kernels | 2.2.1 |
| SQLAlchemy | 1.4.39 |
| statsmodels | 0.13.2 |
| sympy | 1.10.1 |
| tables | 3.6.1 |
| TBB | 0.2 |
| tblib | 1.7.0 |
| terminado | 0.13.1 |
| testpath | 0.6.0 |
| text-unidecode | 1.3 |
| textdistance | 4.2.1 |




*Rys. 4. Wylistowanie wszystkich zainstalowanych pakietów.*

# Zadanie 2

Utwórz własne repozytorium do przedmiotu na github.com.

1. Utworzenie własnego repozytorium.
2. Sklonowanie repozytorium.
3. Dodanie plików do repozytorium.
4. Wstawienie linku do repozytorium do kursu na upel.agh.edu.pl.

Link do repozytorium: **https://github.com/BrzozkaMarcin/AiBD**