installation-of-packages

September 24, 2024

TensorFlow

```python
[15]: # Install TensorFlow
      !pip install tensorflow
```

```
Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: tensorflow in
c:\users\admin\appdata\roaming\python\python311\site-packages (2.17.0)
Requirement already satisfied: tensorflow-intel==2.17.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow)
(2.17.0)
Requirement already satisfied: absl-py>=1.0.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-
intel==2.17.0->tensorflow) (2.1.0)
Requirement already satisfied: astunparse>=1.6.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-
intel==2.17.0->tensorflow) (1.6.3)
Requirement already satisfied: flatbuffers>=24.3.25 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-
intel==2.17.0->tensorflow) (24.3.25)
Requirement already satisfied: gast!=0.5.0,!=0.5.1,!=0.5.2,>=0.2.1 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-
intel==2.17.0->tensorflow) (0.6.0)
Requirement already satisfied: google-pasta>=0.1.1 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-
intel==2.17.0->tensorflow) (0.2.0)
Requirement already satisfied: h5py>=3.10.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-
intel==2.17.0->tensorflow) (3.11.0)
Requirement already satisfied: libclang>=13.0.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-
intel==2.17.0->tensorflow) (18.1.1)
Requirement already satisfied: ml-dtypes<0.5.0,>=0.3.1 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-
intel==2.17.0->tensorflow) (0.4.1)
Requirement already satisfied: opt-einsum>=2.3.2 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-
intel==2.17.0->tensorflow) (3.3.0)
```

Requirement already satisfied: packaging in c:\programdata\anaconda3\lib\site-packages (from tensorflow-intel==2.17.0->tensorflow) (23.1)
Requirement already satisfied:
protobuf!=4.21.0,!=4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.20.3
in c:\programdata\anaconda3\lib\site-packages (from tensorflow-intel==2.17.0->tensorflow) (3.20.3)
Requirement already satisfied: requests<3,>=2.21.0 in
c:\programdata\anaconda3\lib\site-packages (from tensorflow-intel==2.17.0->tensorflow) (2.31.0)
Requirement already satisfied: setuptools in c:\programdata\anaconda3\lib\site-packages (from tensorflow-intel==2.17.0->tensorflow) (68.2.2)
Requirement already satisfied: six>=1.12.0 in c:\programdata\anaconda3\lib\site-packages (from tensorflow-intel==2.17.0->tensorflow) (1.16.0)
Requirement already satisfied: termcolor>=1.1.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-intel==2.17.0->tensorflow) (2.4.0)
Requirement already satisfied: typing-extensions>=3.6.6 in
c:\programdata\anaconda3\lib\site-packages (from tensorflow-intel==2.17.0->tensorflow) (4.9.0)
Requirement already satisfied: wrapt>=1.11.0 in
c:\programdata\anaconda3\lib\site-packages (from tensorflow-intel==2.17.0->tensorflow) (1.14.1)
Requirement already satisfied: grpcio<2.0,>=1.24.3 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-intel==2.17.0->tensorflow) (1.66.1)
Requirement already satisfied: tensorboard<2.18,>=2.17 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-intel==2.17.0->tensorflow) (2.17.1)
Requirement already satisfied: keras>=3.2.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-intel==2.17.0->tensorflow) (3.5.0)
Requirement already satisfied: tensorflow-io-gcs-filesystem>=0.23.1 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from tensorflow-intel==2.17.0->tensorflow) (0.31.0)
Requirement already satisfied: numpy<2.0.0,>=1.23.5 in
c:\programdata\anaconda3\lib\site-packages (from tensorflow-intel==2.17.0->tensorflow) (1.26.4)
Requirement already satisfied: wheel<1.0,>=0.23.0 in
c:\programdata\anaconda3\lib\site-packages (from astunparse>=1.6.0->tensorflow-intel==2.17.0->tensorflow) (0.41.2)
Requirement already satisfied: rich in c:\programdata\anaconda3\lib\site-packages (from keras>=3.2.0->tensorflow-intel==2.17.0->tensorflow) (13.3.5)
Requirement already satisfied: namex in
c:\users\admin\appdata\roaming\python\python311\site-packages (from keras>=3.2.0->tensorflow-intel==2.17.0->tensorflow) (0.0.8)
Requirement already satisfied: optree in
c:\users\admin\appdata\roaming\python\python311\site-packages (from keras>=3.2.0->tensorflow-intel==2.17.0->tensorflow) (0.12.1)

Requirement already satisfied: charset-normalizer<4,>=2 in
c:\programdata\anaconda3\lib\site-packages (from
requests<3,>=2.21.0->tensorflow-intel==2.17.0->tensorflow) (2.0.4)
Requirement already satisfied: idna<4,>=2.5 in
c:\programdata\anaconda3\lib\site-packages (from
requests<3,>=2.21.0->tensorflow-intel==2.17.0->tensorflow) (3.4)
Requirement already satisfied: urllib3<3,>=1.21.1 in
c:\programdata\anaconda3\lib\site-packages (from
requests<3,>=2.21.0->tensorflow-intel==2.17.0->tensorflow) (2.0.7)
Requirement already satisfied: certifi>=2017.4.17 in
c:\programdata\anaconda3\lib\site-packages (from
requests<3,>=2.21.0->tensorflow-intel==2.17.0->tensorflow) (2024.2.2)
Requirement already satisfied: markdown>=2.6.8 in
c:\programdata\anaconda3\lib\site-packages (from
tensorboard<2.18,>=2.17->tensorflow-intel==2.17.0->tensorflow) (3.4.1)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from
tensorboard<2.18,>=2.17->tensorflow-intel==2.17.0->tensorflow) (0.7.2)
Requirement already satisfied: werkzeug>=1.0.1 in
c:\programdata\anaconda3\lib\site-packages (from
tensorboard<2.18,>=2.17->tensorflow-intel==2.17.0->tensorflow) (2.2.3)
Requirement already satisfied: MarkupSafe>=2.1.1 in
c:\programdata\anaconda3\lib\site-packages (from
werkzeug>=1.0.1->tensorboard<2.18,>=2.17->tensorflow-intel==2.17.0->tensorflow)
(2.1.3)
Requirement already satisfied: markdown-it-py<3.0.0,>=2.2.0 in
c:\programdata\anaconda3\lib\site-packages (from rich->keras>=3.2.0->tensorflow-
intel==2.17.0->tensorflow) (2.2.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from
rich->keras>=3.2.0->tensorflow-intel==2.17.0->tensorflow) (2.17.2)
Requirement already satisfied: mdurl~=0.1 in c:\programdata\anaconda3\lib\site-
packages (from markdown-it-py<3.0.0,>=2.2.0->rich->keras>=3.2.0->tensorflow-
intel==2.17.0->tensorflow) (0.1.0)

DEPRECATION: Loading egg at c:\programdata\anaconda3\lib\site-
packages\vboxapi-1.0-py3.11.egg is deprecated. pip 24.3 will enforce this
behaviour change. A possible replacement is to use pip for package
installation.. Discussion can be found at
https://github.com/pypa/pip/issues/12330

```python
import tensorflow as tf
print(tf.__version__)
```

2.17.0

Keras

```
[18]:  # Install Keras
       !pip install keras
```

Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: keras in
c:\users\admin\appdata\roaming\python\python311\site-packages (3.5.0)
Requirement already satisfied: absl-py in
c:\users\admin\appdata\roaming\python\python311\site-packages (from keras)
(2.1.0)
Requirement already satisfied: numpy in c:\programdata\anaconda3\lib\site-
packages (from keras) (1.26.4)
Requirement already satisfied: rich in c:\programdata\anaconda3\lib\site-
packages (from keras) (13.3.5)
Requirement already satisfied: namex in
c:\users\admin\appdata\roaming\python\python311\site-packages (from keras)
(0.0.8)
Requirement already satisfied: h5py in
c:\users\admin\appdata\roaming\python\python311\site-packages (from keras)
(3.11.0)
Requirement already satisfied: optree in
c:\users\admin\appdata\roaming\python\python311\site-packages (from keras)
(0.12.1)
Requirement already satisfied: ml-dtypes in
c:\users\admin\appdata\roaming\python\python311\site-packages (from keras)
(0.4.1)
Requirement already satisfied: packaging in c:\programdata\anaconda3\lib\site-
packages (from keras) (23.1)
Requirement already satisfied: typing-extensions>=4.5.0 in
c:\programdata\anaconda3\lib\site-packages (from optree->keras) (4.9.0)
Requirement already satisfied: markdown-it-py<3.0.0,>=2.2.0 in
c:\programdata\anaconda3\lib\site-packages (from rich->keras) (2.2.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in
c:\users\admin\appdata\roaming\python\python311\site-packages (from rich->keras)
(2.17.2)
Requirement already satisfied: mdurl~=0.1 in c:\programdata\anaconda3\lib\site-
packages (from markdown-it-py<3.0.0,>=2.2.0->rich->keras) (0.1.0)

DEPRECATION: Loading egg at c:\programdata\anaconda3\lib\site-
packages\vboxapi-1.0-py3.11.egg is deprecated. pip 24.3 will enforce this
behaviour change. A possible replacement is to use pip for package
installation.. Discussion can be found at
https://github.com/pypa/pip/issues/12330

```
[19]:  import keras
       print(keras.__version__)
```

3.5.0

PyTorch

```
[21]:  # Install PyTorch (this example uses pip for CPU)
       !pip install torch torchvision torchaudio
```

Defaulting to user installation because normal site-packages is not writeable
Requirement already satisfied: torch in
c:\users\admin\appdata\roaming\python\python311\site-packages (2.4.1)
Requirement already satisfied: torchvision in
c:\users\admin\appdata\roaming\python\python311\site-packages (0.19.1)
Requirement already satisfied: torchaudio in
c:\users\admin\appdata\roaming\python\python311\site-packages (2.4.1)
Requirement already satisfied: filelock in c:\programdata\anaconda3\lib\site-
packages (from torch) (3.13.1)
Requirement already satisfied: typing-extensions>=4.8.0 in
c:\programdata\anaconda3\lib\site-packages (from torch) (4.9.0)
Requirement already satisfied: sympy in c:\programdata\anaconda3\lib\site-
packages (from torch) (1.12)
Requirement already satisfied: networkx in c:\programdata\anaconda3\lib\site-
packages (from torch) (3.1)
Requirement already satisfied: jinja2 in c:\programdata\anaconda3\lib\site-
packages (from torch) (3.1.3)
Requirement already satisfied: fsspec in c:\programdata\anaconda3\lib\site-
packages (from torch) (2023.10.0)
Requirement already satisfied: numpy in c:\programdata\anaconda3\lib\site-
packages (from torchvision) (1.26.4)
Requirement already satisfied: pillow!=8.3.*,>=5.3.0 in
c:\programdata\anaconda3\lib\site-packages (from torchvision) (10.2.0)
Requirement already satisfied: MarkupSafe>=2.0 in
c:\programdata\anaconda3\lib\site-packages (from jinja2->torch) (2.1.3)
Requirement already satisfied: mpmath>=0.19 in
c:\programdata\anaconda3\lib\site-packages (from sympy->torch) (1.3.0)

DEPRECATION: Loading egg at c:\programdata\anaconda3\lib\site-
packages\vboxapi-1.0-py3.11.egg is deprecated. pip 24.3 will enforce this
behaviour change. A possible replacement is to use pip for package
installation.. Discussion can be found at
https://github.com/pypa/pip/issues/12330

```
[22]:  import torch
       print(torch.__version__)
```

2.4.1+cpu

```
[29]:  # Check installations
       try:
           import tensorflow as tf
           print("TensorFlow version:", tf.__version__)
       except ImportError:
           print("TensorFlow is not installed.")
```

```python
try:
    import keras
    print("Keras version:", keras.__version__)
except ImportError:
    print("Keras is not installed.")

try:
    import torch
    print("PyTorch version:", torch.__version__)
except ImportError:
    print("PyTorch is not installed.")
```

```
TensorFlow version: 2.17.0
Keras version: 3.5.0
PyTorch version: 2.4.1+cpu
```

[ ]: