Evaluation

This notebook runs the official evaluation code evaluate.py on google colab.

```
In []: import numpy as np
    import torch
    import torch.nn as nn
    from tqdm import tqdm
    from sklearn import preprocessing
    import joblib
    from torch.optim import AdamW
In [2]: from google.colab import drive
    drive.mount("/content/drive")
```

Drive already mounted at /content/drive; to attempt to forcibly remount, cal l drive.mount("/content/drive", force_remount=True).

Setup the evaluation script

1. download the evaluation models

```
In [3]: # run once only to setup the models folder
# will take quite awhile to run (dependening on network speed but usually ta
!bash /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/get_models.sh
```

```
Cloning into 'LENS'...
remote: Enumerating objects: 178, done.
remote: Counting objects: 100% (85/85), done.
remote: Compressing objects: 100% (64/64), done.
remote: Total 178 (delta 25), reused 64 (delta 15), pack-reused 93
Receiving objects: 100% (178/178), 509.44 KiB | 4.95 MiB/s, done.
Resolving deltas: 100% (64/64), done.
Processing ./LENS/lens
  Preparing metadata (setup.py) ... done
Requirement already satisfied: sentencepiece>=0.1.96 in /usr/local/lib/pytho
n3.10/dist-packages (from lens-metric==0.1.1) (0.1.99)
Collecting pandas==1.1.5 (from lens-metric==0.1.1)
  Downloading pandas-1.1.5.tar.gz (5.2 MB)
                                    5.2/5.2 MB 13.7 MB/s eta 0:00:
00
  Installing build dependencies ... done
  Getting requirements to build wheel ... done
  Preparing metadata (pyproject.toml) ... done
Requirement already satisfied: transformers>=4.8 in /usr/local/lib/python3.1
0/dist-packages (from lens-metric==0.1.1) (4.38.2)
Collecting pytorch-lightning==1.6.0 (from lens-metric==0.1.1)
  Downloading pytorch lightning-1.6.0-py3-none-any.whl (582 kB)
                                     582.1/582.1 kB 43.4 MB/s eta
Collecting jsonargparse==3.13.1 (from lens-metric==0.1.1)
  Downloading jsonargparse-3.13.1-py3-none-any.whl (101 kB)
                                      _____ 101.4/101.4 kB 12.6 MB/s eta
0:00:00
Collecting torch<2,>=1.6.0 (from lens-metric==0.1.1)
  Downloading torch-1.13.1-cp310-cp310-manylinux1_x86_64.whl (887.5 MB)
                              887.5/887.5 MB 1.7 MB/s eta 0:
00:00
Requirement already satisfied: numpy>=1.20.0 in /usr/local/lib/python3.10/di
st-packages (from lens-metric==0.1.1) (1.25.2)
Collecting torchmetrics>=0.7 (from lens-metric==0.1.1)
  Downloading torchmetrics-1.3.1-py3-none-any.whl (840 kB)
                                     840.4/840.4 kB 26.6 MB/s eta
0:00:00
Collecting sacrebleu>=2.0.0 (from lens-metric==0.1.1)
  Downloading sacrebleu-2.4.1-py3-none-any.whl (106 kB)
                              _____ 106.6/106.6 kB 15.9 MB/s eta
Requirement already satisfied: scipy>=1.5.4 in /usr/local/lib/python3.10/dis
t-packages (from lens-metric==0.1.1) (1.11.4)
Requirement already satisfied: PyYAML>=3.13 in /usr/local/lib/python3.10/dis
t-packages (from jsonargparse==3.13.1->lens-metric==0.1.1) (6.0.1)
Requirement already satisfied: python-dateutil>=2.7.3 in /usr/local/lib/pyth
on3.10/dist-packages (from pandas==1.1.5->lens-metric==0.1.1) (2.8.2)
Requirement already satisfied: pytz>=2017.2 in /usr/local/lib/python3.10/dis
t-packages (from pandas==1.1.5->lens-metric==0.1.1) (2023.4)
Requirement already satisfied: tqdm>=4.41.0 in /usr/local/lib/python3.10/dis
t-packages (from pytorch-lightning==1.6.0->lens-metric==0.1.1) (4.66.2)
Requirement already satisfied: fsspec[http]!=2021.06.0,>=2021.05.0 in /usr/l
ocal/lib/python3.10/dist-packages (from pytorch-lightning==1.6.0->lens-metri
c==0.1.1) (2023.6.0)
Requirement already satisfied: tensorboard>=2.2.0 in /usr/local/lib/python3.
```

```
10/dist-packages (from pytorch-lightning==1.6.0->lens-metric==0.1.1) (2.15.
Collecting pyDeprecate<0.4.0,>=0.3.1 (from pytorch-lightning==1.6.0->lens-me
tric==0.1.1)
  Downloading pyDeprecate-0.3.2-py3-none-any.whl (10 kB)
Requirement already satisfied: packaging>=17.0 in /usr/local/lib/python3.10/
dist-packages (from pytorch-lightning==1.6.0->lens-metric==0.1.1) (24.0)
Requirement already satisfied: typing-extensions>=4.0.0 in /usr/local/lib/py
thon3.10/dist-packages (from pytorch-lightning==1.6.0->lens-metric==0.1.1)
(4.10.0)
Collecting portalocker (from sacrebleu>=2.0.0->lens-metric==0.1.1)
  Downloading portalocker-2.8.2-py3-none-any.whl (17 kB)
Requirement already satisfied: regex in /usr/local/lib/python3.10/dist-packa
ges (from sacrebleu>=2.0.0->lens-metric==0.1.1) (2023.12.25)
Requirement already satisfied: tabulate>=0.8.9 in /usr/local/lib/python3.10/
dist-packages (from sacrebleu>=2.0.0->lens-metric==0.1.1) (0.9.0)
Collecting colorama (from sacrebleu>=2.0.0->lens-metric==0.1.1)
  Downloading colorama-0.4.6-py2.py3-none-any.whl (25 kB)
Requirement already satisfied: lxml in /usr/local/lib/python3.10/dist-packag
es (from sacrebleu>=2.0.0->lens-metric==0.1.1) (4.9.4)
Collecting nvidia-cuda-runtime-cu11==11.7.99 (from torch<2,>=1.6.0->lens-met
ric==0.1.1)
  Downloading nvidia_cuda_runtime_cu11-11.7.99-py3-none-manylinux1_x86_64.wh
l (849 kB)
                                   849.3/849.3 kB 26.2 MB/s eta
0:00:00
Collecting nvidia-cudnn-cu11==8.5.0.96 (from torch<2,>=1.6.0->lens-metric==
  Downloading nvidia cudnn cu11-8.5.0.96-2-py3-none-manylinux1 x86 64.whl (5
57.1 MB)
                                    557.1/557.1 MB 1.2 MB/s eta 0:
00:00
Collecting nvidia-cublas-cu11==11.10.3.66 (from torch<2,>=1.6.0->lens-metric
==0.1.1)
  Downloading nvidia cublas cu11-11.10.3.66-py3-none-manylinux1 x86 64.whl
(317.1 MB)
                                317.1/317.1 MB 3.3 MB/s eta 0:
00:00
Collecting nvidia-cuda-nvrtc-cu11==11.7.99 (from torch<2,>=1.6.0->lens-metri
c==0.1.1)
  Downloading nvidia cuda nvrtc cu11-11.7.99-2-py3-none-manylinux1 x86 64.wh
l (21.0 MB)
                                 21.0/21.0 MB 8.0 MB/s eta 0:0
Requirement already satisfied: setuptools in /usr/local/lib/python3.10/dist-
packages (from nvidia-cublas-cu11==11.10.3.66->torch<2,>=1.6.0->lens-metric=
=0.1.1) (67.7.2)
Requirement already satisfied: wheel in /usr/local/lib/python3.10/dist-packa
ges (from nvidia-cublas-cu11==11.10.3.66->torch<2,>=1.6.0->lens-metric==0.1.
1) (0.43.0)
Collecting lightning-utilities>=0.8.0 (from torchmetrics>=0.7->lens-metric==
0.1.1
  Downloading lightning utilities-0.10.1-py3-none-any.whl (24 kB)
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-pa
ckages (from transformers>=4.8->lens-metric==0.1.1) (3.13.1)
Requirement already satisfied: huggingface-hub<1.0,>=0.19.3 in /usr/local/li
```

```
b/python3.10/dist-packages (from transformers>=4.8->lens-metric==0.1.1) (0.2
0.3)
```

Requirement already satisfied: requests in /usr/local/lib/python3.10/dist-pa ckages (from transformers>=4.8->lens-metric==0.1.1) (2.31.0)

Requirement already satisfied: tokenizers<0.19,>=0.14 in /usr/local/lib/pyth on3.10/dist-packages (from transformers>=4.8->lens-metric==0.1.1) (0.15.2)

Requirement already satisfied: safetensors>=0.4.1 in /usr/local/lib/python3. 10/dist-packages (from transformers>=4.8->lens-metric==0.1.1) (0.4.2)

Requirement already satisfied: aiohttp!=4.0.0a0,!=4.0.0a1 in /usr/local/lib/python3.10/dist-packages (from fsspec[http]!=2021.06.0,>=2021.05.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (3.9.3)

Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-pa ckages (from python-dateutil>=2.7.3->pandas==1.1.5->lens-metric==0.1.1) (1.1 6.0)

Requirement already satisfied: absl-py>=0.4 in /usr/local/lib/python3.10/dist-packages (from tensorboard>=2.2.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (1.4.0)

Requirement already satisfied: grpcio>=1.48.2 in /usr/local/lib/python3.10/d ist-packages (from tensorboard>=2.2.0->pytorch-lightning==1.6.0->lens-metric ==0.1.1) (1.62.1)

Requirement already satisfied: google-auth<3,>=1.6.3 in /usr/local/lib/pytho n3.10/dist-packages (from tensorboard>=2.2.0->pytorch-lightning==1.6.0->lens -metric==0.1.1) (2.27.0)

Requirement already satisfied: google-auth-oauthlib<2,>=0.5 in /usr/local/lib/python3.10/dist-packages (from tensorboard>=2.2.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (1.2.0)

Requirement already satisfied: markdown>=2.6.8 in /usr/local/lib/python3.10/dist-packages (from tensorboard>=2.2.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (3.5.2)

Requirement already satisfied: protobuf!=4.24.0,>=3.19.6 in /usr/local/lib/p ython3.10/dist-packages (from tensorboard>=2.2.0->pytorch-lightning==1.6.0-> lens-metric==0.1.1) (3.20.3)

Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0 in /us r/local/lib/python3.10/dist-packages (from tensorboard>=2.2.0->pytorch-light ning==1.6.0->lens-metric==0.1.1) (0.7.2)

Requirement already satisfied: werkzeug>=1.0.1 in /usr/local/lib/python3.10/dist-packages (from tensorboard>=2.2.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (3.0.1)

Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/py thon3.10/dist-packages (from requests->transformers>=4.8->lens-metric==0.1. 1) (3.3.2)

Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (from requests->transformers>=4.8->lens-metric==0.1.1) (3.6)

Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3. 10/dist-packages (from requests->transformers>=4.8->lens-metric==0.1.1) (2. 0.7)

Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3. 10/dist-packages (from requests->transformers>=4.8->lens-metric==0.1.1) (202 4.2.2)

Requirement already satisfied: aiosignal>=1.1.2 in /usr/local/lib/python3.1 0/dist-packages (from aiohttp!=4.0.0a0,!=4.0.0a1->fsspec[http]!=2021.06.0,>= 2021.05.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (1.3.1)

Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-packages (from aiohttp!=4.0.0a0,!=4.0.0a1->fsspec[http]!=2021.06.0,>=202 1.05.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (23.2.0)

Requirement already satisfied: frozenlist>=1.1.1 in /usr/local/lib/python3.1

```
0/dist-packages (from aiohttp!=4.0.0a0,!=4.0.0a1->fsspec[http]!=2021.06.0,>=
2021.05.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (1.4.1)
Requirement already satisfied: multidict<7.0,>=4.5 in /usr/local/lib/python
3.10/dist-packages (from aiohttp!=4.0.0a0,!=4.0.0a1->fsspec[http]!=2021.06.
0,>=2021.05.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (6.0.5)
Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/d
ist-packages (from aiohttp!=4.0.0a0,!=4.0.0a1->fsspec[http]!=2021.06.0,>=202
1.05.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (1.9.4)
Requirement already satisfied: async-timeout<5.0,>=4.0 in /usr/local/lib/pyt
hon3.10/dist-packages (from aiohttp!=4.0.0a0,!=4.0.0a1->fsspec[http]!=2021.0
6.0,>=2021.05.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (4.0.3)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in /usr/local/lib/pyth
on3.10/dist-packages (from google-auth<3,>=1.6.3->tensorboard>=2.2.0->pytorc
h-lightning==1.6.0->lens-metric==0.1.1) (5.3.3)
Requirement already satisfied: pyasn1-modules>=0.2.1 in /usr/local/lib/pytho
n3.10/dist-packages (from google-auth<3,>=1.6.3->tensorboard>=2.2.0->pytorch
-lightning==1.6.0->lens-metric==0.1.1) (0.3.0)
Requirement already satisfied: rsa<5,>=3.1.4 in /usr/local/lib/python3.10/di
st-packages (from google-auth<3,>=1.6.3->tensorboard>=2.2.0->pytorch-lightni
ng==1.6.0->lens-metric==0.1.1) (4.9)
Requirement already satisfied: requests-oauthlib>=0.7.0 in /usr/local/lib/py
thon3.10/dist-packages (from google-auth-oauthlib<2,>=0.5->tensorboard>=2.2.
0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (1.4.0)
Requirement already satisfied: MarkupSafe>=2.1.1 in /usr/local/lib/python3.1
0/dist-packages (from werkzeug>=1.0.1->tensorboard>=2.2.0->pytorch-lightning
==1.6.0 - \text{lens-metric} == 0.1.1) (2.1.5)
Requirement already satisfied: pyasn1<0.6.0,>=0.4.6 in /usr/local/lib/python
3.10/dist-packages (from pyasn1-modules>=0.2.1->google-auth<3,>=1.6.3->tenso
rboard>=2.2.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (0.5.1)
Requirement already satisfied: oauthlib>=3.0.0 in /usr/local/lib/python3.10/
dist-packages (from requests-oauthlib>=0.7.0-ygoogle-auth-oauthlib<2,>=0.5->
tensorboard>=2.2.0->pytorch-lightning==1.6.0->lens-metric==0.1.1) (3.2.2)
Building wheels for collected packages: lens-metric, pandas
  Building wheel for lens-metric (setup.py) ... done
  Created wheel for lens-metric: filename=lens metric-0.1.1-py3-none-any.whl
size=30494 sha256=053f1db39896219d2dc9fdaadbbf09282fc2b8596feb24d3bad6113909
a39c7d
  Stored in directory: /tmp/pip-ephem-wheel-cache-ntf0j15x/wheels/25/27/40/b
007d5d6927944a3374ecbd9412942c4a3c2b5834446f045ad
  Building wheel for pandas (pyproject.toml) ... done
  Created wheel for pandas: filename=pandas-1.1.5-cp310-cp310-linux x86 64.w
hl size=33263144 sha256=72a0f01270f7248c6f6554fb3b0c1fc4436d79d7bb1b0d685945
fdb8e472f2cd
  Stored in directory: /root/.cache/pip/wheels/92/41/92/769e05cd303040fdae62
5c9f5a8d38f1d37c423aa2a30b3d0d
Successfully built lens-metric pandas
Installing collected packages: pyDeprecate, portalocker, nvidia-cuda-runtime
-cull, nvidia-cuda-nvrtc-cull, nvidia-cublas-cull, lightning-utilities, json
argparse, colorama, sacrebleu, pandas, nvidia-cudnn-cu11, torch, torchmetric
s, pytorch-lightning, lens-metric
  Attempting uninstall: pandas
    Found existing installation: pandas 1.5.3
    Uninstalling pandas-1.5.3:
      Successfully uninstalled pandas-1.5.3
  Attempting uninstall: torch
    Found existing installation: torch 2.2.1+cu121
```

Uninstalling torch-2.2.1+cu121:

```
Successfully uninstalled torch-2.2.1+cu121
```

ERROR: pip's dependency resolver does not currently take into account all the packages that are installed. This behaviour is the source of the following dependency conflicts.

arviz 0.15.1 requires pandas>=1.3.0, but you have pandas 1.1.5 which is incompatible.

bigframes 0.24.0 requires pandas<2.1.4,>=1.5.0, but you have pandas 1.1.5 wh ich is incompatible.

bokeh 3.3.4 requires pandas>=1.2, but you have pandas 1.1.5 which is incompatible.

google-colab 1.0.0 requires pandas==1.5.3, but you have pandas 1.1.5 which i
s incompatible.

ibis—framework 8.0.0 requires pandas<3,>=1.2.5, but you have pandas 1.1.5 wh ich is incompatible.

mizani 0.9.3 requires pandas>=1.3.5, but you have pandas 1.1.5 which is incompatible.

panel 1.3.8 requires pandas>=1.2, but you have pandas 1.1.5 which is incompatible.

plotnine 0.12.4 requires pandas>=1.5.0, but you have pandas 1.1.5 which is i ncompatible.

seaborn 0.13.1 requires pandas>=1.2, but you have pandas 1.1.5 which is incompatible.

torchaudio 2.2.1+cu121 requires torch==2.2.1, but you have torch 1.13.1 which is incompatible.

torchdata 0.7.1 requires torch>=2, but you have torch 1.13.1 which is incomp atible.

torchtext 0.17.1 requires torch==2.2.1, but you have torch 1.13.1 which is i ncompatible.

torchvision 0.17.1+cu121 requires torch==2.2.1, but you have torch 1.13.1 wh ich is incompatible.

xarray 2023.7.0 requires pandas>=1.4, but you have pandas 1.1.5 which is inc ompatible.

yfinance 0.2.37 requires pandas>=1.3.0, but you have pandas 1.1.5 which is i ncompatible.

Successfully installed colorama-0.4.6 jsonargparse-3.13.1 lens-metric-0.1.1 lightning-utilities-0.10.1 nvidia-cublas-cu11-11.10.3.66 nvidia-cuda-nvrtc-c u11-11.7.99 nvidia-cuda-runtime-cu11-11.7.99 nvidia-cudnn-cu11-8.5.0.96 pand as-1.1.5 portalocker-2.8.2 pyDeprecate-0.3.2 pytorch-lightning-1.6.0 sacrebleu-2.4.1 torch-1.13.1 torchmetrics-1.3.1

% Total % Received % Xferd Average Speed Time Time Curr ent

Dload Upload Total Spent Left Spee

d 100 1177M 100 1177M 0 0 124M 0 0:00:09 0:00:09 --:-- 12 7M

Archive: LENS-checkpoint.zip

creating: ./LENS/LENS/

inflating: ./LENS/LENS/.DS_Store

inflating: ./LENS/__MACOSX/LENS/._.DS_Store

creating: ./LENS/LENS/checkpoints/
inflating: ./LENS/LENS/hparams.yaml

inflating: ./LENS/ MACOSX/LENS/. hparams.yaml

inflating: ./LENS/LENS/checkpoints/epoch=5-step=6102.ckpt

Cloning into 'AlignScore'...

remote: Enumerating objects: 202, done.

```
remote: Counting objects: 100% (71/71), done.
remote: Compressing objects: 100% (53/53), done.
remote: Total 202 (delta 45), reused 36 (delta 18), pack-reused 131
Receiving objects: 100% (202/202), 531.19 KiB | 5.16 MiB/s, done.
Resolving deltas: 100% (111/111), done.
Processing ./AlignScore
  Installing build dependencies ... done
  Getting requirements to build wheel ... done
  Preparing metadata (pyproject.toml) ... done
Collecting datasets<3,>=2.3.2 (from alignscore==0.1.3)
  Downloading datasets-2.18.0-py3-none-any.whl (510 kB)
                                        ----- 510.5/510.5 kB 3.6 MB/s eta 0:
00:00
Collecting jsonlines<3,>=2.0.0 (from alignscore==0.1.3)
  Downloading jsonlines-2.0.0-py3-none-any.whl (6.3 kB)
Requirement already satisfied: nltk<4,>=3.7 in /usr/local/lib/python3.10/dis
t-packages (from alignscore==0.1.3) (3.8.1)
Requirement already satisfied: numpy<2,>=1.23.1 in /usr/local/lib/python3.1
0/dist-packages (from alignscore==0.1.3) (1.25.2)
Collecting protobuf<=3.20 (from alignscore==0.1.3)</pre>
  Downloading protobuf-3.20.0-cp310-cp310-manylinux_2_12_x86_64.manylinux201
0 x86 64.whl (1.1 MB)
                                    1.1/1.1 MB 18.9 MB/s eta 0:00:
Collecting pytorch-lightning<2,>=1.7.7 (from alignscore==0.1.3)
  Downloading pytorch lightning-1.9.5-py3-none-any.whl (829 kB)
                                     829.5/829.5 kB 60.3 MB/s eta
0:00:00
Requirement already satisfied: scikit-learn<2,>=1.1.2 in /usr/local/lib/pyth
on3.10/dist-packages (from alignscore==0.1.3) (1.2.2)
Requirement already satisfied: scipy<2,>=1.8.1 in /usr/local/lib/python3.10/
dist-packages (from alignscore==0.1.3) (1.11.4)
Requirement already satisfied: spacy<4,>=3.4.0 in /usr/local/lib/python3.10/
dist-packages (from alignscore==0.1.3) (3.7.4)
Requirement already satisfied: tensorboard<3,>=2.12.0 in /usr/local/lib/pyth
on3.10/dist-packages (from alignscore==0.1.3) (2.15.2)
Requirement already satisfied: torch<2,>=1.12.1 in /usr/local/lib/python3.1
0/dist-packages (from alignscore==0.1.3) (1.13.1)
Requirement already satisfied: tqdm<5,>=4.64.0 in /usr/local/lib/python3.10/
dist-packages (from alignscore==0.1.3) (4.66.2)
Requirement already satisfied: transformers<5,>=4.20.1 in /usr/local/lib/pyt
hon3.10/dist-packages (from alignscore==0.1.3) (4.38.2)
Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-pa
ckages (from datasets<3,>=2.3.2->alignscore==0.1.3) (3.13.1)
Requirement already satisfied: pyarrow>=12.0.0 in /usr/local/lib/python3.10/
dist-packages (from datasets<3,>=2.3.2->alignscore==0.1.3) (14.0.2)
Requirement already satisfied: pyarrow-hotfix in /usr/local/lib/python3.10/d
ist-packages (from datasets<3,>=2.3.2->alignscore==0.1.3) (0.6)
Collecting dill<0.3.9,>=0.3.0 (from datasets<3,>=2.3.2->alignscore==0.1.3)
  Downloading dill-0.3.8-py3-none-any.whl (116 kB)
                                       ----- 116.3/116.3 kB 17.0 MB/s eta
0:00:00
Requirement already satisfied: pandas in /usr/local/lib/python3.10/dist-pack
ages (from datasets<3,>=2.3.2->alignscore==0.1.3) (1.1.5)
Requirement already satisfied: requests>=2.19.0 in /usr/local/lib/python3.1
0/dist-packages (from datasets<3,>=2.3.2->alignscore==0.1.3) (2.31.0)
```

```
Collecting xxhash (from datasets<3,>=2.3.2->alignscore==0.1.3)
  Downloading xxhash-3.4.1-cp310-cp310-manylinux 2 17 x86 64.manylinux2014 x
86 64.whl (194 kB)
                                          — 194.1/194.1 kB 26.7 MB/s eta
0:00:00
Collecting multiprocess (from datasets<3,>=2.3.2->alignscore==0.1.3)
  Downloading multiprocess-0.70.16-py310-none-any.whl (134 kB)
                                      134.8/134.8 kB 20.8 MB/s eta
0:00:00
Requirement already satisfied: fsspec[http]<=2024.2.0,>=2023.1.0 in /usr/loc
al/lib/python3.10/dist-packages (from datasets<3,>=2.3.2->alignscore==0.1.3)
Requirement already satisfied: aiohttp in /usr/local/lib/python3.10/dist-pac
kages (from datasets<3,>=2.3.2->alignscore==0.1.3) (3.9.3)
Requirement already satisfied: huggingface-hub>=0.19.4 in /usr/local/lib/pyt
hon3.10/dist-packages (from datasets<3,>=2.3.2->alignscore==0.1.3) (0.20.3)
Requirement already satisfied: packaging in /usr/local/lib/python3.10/dist-p
ackages (from datasets<3,>=2.3.2->alignscore==0.1.3) (24.0)
Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.10/dist
-packages (from datasets<3,>=2.3.2->alignscore==0.1.3) (6.0.1)
Requirement already satisfied: click in /usr/local/lib/python3.10/dist-packa
ges (from nltk<4,>=3.7->alignscore==0.1.3) (8.1.7)
Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-pack
ages (from nltk<4,>=3.7->alignscore==0.1.3) (1.3.2)
Requirement already satisfied: regex>=2021.8.3 in /usr/local/lib/python3.10/
dist-packages (from nltk<4,>=3.7->alignscore==0.1.3) (2023.12.25)
Requirement already satisfied: torchmetrics>=0.7.0 in /usr/local/lib/python
3.10/dist-packages (from pytorch-lightning<2,>=1.7.7->alignscore==0.1.3) (1.
Requirement already satisfied: typing-extensions>=4.0.0 in /usr/local/lib/py
thon3.10/dist-packages (from pytorch-lightning<2,>=1.7.7->alignscore==0.1.3)
Requirement already satisfied: lightning-utilities>=0.6.0.post0 in /usr/loca
l/lib/python3.10/dist-packages (from pytorch-lightning<2,>=1.7.7->alignscore
==0.1.3) (0.10.1)
Requirement already satisfied: threadpoolctl>=2.0.0 in /usr/local/lib/python
3.10/dist-packages (from scikit-learn<2,>=1.1.2->alignscore==0.1.3) (3.3.0)
Requirement already satisfied: spacy-legacy<3.1.0,>=3.0.11 in /usr/local/li
b/python3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (3.0.1
Requirement already satisfied: spacy-loggers<2.0.0,>=1.0.0 in /usr/local/li
b/python3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (1.0.5)
Requirement already satisfied: murmurhash<1.1.0,>=0.28.0 in /usr/local/lib/p
ython3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (1.0.10)
Requirement already satisfied: cymem<2.1.0,>=2.0.2 in /usr/local/lib/python
3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (2.0.8)
Requirement already satisfied: preshed<3.1.0,>=3.0.2 in /usr/local/lib/pytho
n3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (3.0.9)
Requirement already satisfied: thinc<8.3.0,>=8.2.2 in /usr/local/lib/python
3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (8.2.3)
Requirement already satisfied: wasabi<1.2.0,>=0.9.1 in /usr/local/lib/python
3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (1.1.2)
Requirement already satisfied: srsly<3.0.0,>=2.4.3 in /usr/local/lib/python
3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (2.4.8)
Requirement already satisfied: catalogue<2.1.0,>=2.0.6 in /usr/local/lib/pyt
hon3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (2.0.10)
```

```
Requirement already satisfied: weasel<0.4.0,>=0.1.0 in /usr/local/lib/python
3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (0.3.4)
Requirement already satisfied: typer<0.10.0,>=0.3.0 in /usr/local/lib/python
3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (0.9.0)
Requirement already satisfied: smart-open<7.0.0,>=5.2.1 in /usr/local/lib/py
thon3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (6.4.0)
Requirement already satisfied: pydantic!=1.8,!=1.8.1,<3.0.0,>=1.7.4 in /usr/
local/lib/python3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3)
Requirement already satisfied: jinja2 in /usr/local/lib/python3.10/dist-pack
ages (from spacy<4,>=3.4.0->alignscore==0.1.3) (3.1.3)
Requirement already satisfied: setuptools in /usr/local/lib/python3.10/dist-
packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (67.7.2)
Requirement already satisfied: langcodes<4.0.0,>=3.2.0 in /usr/local/lib/pyt
hon3.10/dist-packages (from spacy<4,>=3.4.0->alignscore==0.1.3) (3.3.0)
Requirement already satisfied: absl-py>=0.4 in /usr/local/lib/python3.10/dis
t-packages (from tensorboard<3,>=2.12.0->alignscore==0.1.3) (1.4.0)
Requirement already satisfied: grpcio>=1.48.2 in /usr/local/lib/python3.10/d
ist-packages (from tensorboard<3,>=2.12.0->alignscore==0.1.3) (1.62.1)
Requirement already satisfied: google-auth<3,>=1.6.3 in /usr/local/lib/pytho
n3.10/dist-packages (from tensorboard<3,>=2.12.0->alignscore==0.1.3) (2.27.
Requirement already satisfied: google-auth-oauthlib<2,>=0.5 in /usr/local/li
b/python3.10/dist-packages (from tensorboard<3,>=2.12.0->alignscore==0.1.3)
(1.2.0)
Requirement already satisfied: markdown>=2.6.8 in /usr/local/lib/python3.10/
dist-packages (from tensorboard<3,>=2.12.0->alignscore==0.1.3) (3.5.2)
Requirement already satisfied: six>1.9 in /usr/local/lib/python3.10/dist-pac
kages (from tensorboard<3,>=2.12.0->alignscore==0.1.3) (1.16.0)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0 in /us
r/local/lib/python3.10/dist-packages (from tensorboard<3,>=2.12.0->alignscor
e==0.1.3) (0.7.2)
Requirement already satisfied: werkzeug>=1.0.1 in /usr/local/lib/python3.10/
dist-packages (from tensorboard<3,>=2.12.0->alignscore==0.1.3) (3.0.1)
Requirement already satisfied: nvidia-cuda-runtime-cu11==11.7.99 in /usr/loc
al/lib/python3.10/dist-packages (from torch<2,>=1.12.1->alignscore==0.1.3)
(11.7.99)
Requirement already satisfied: nvidia-cudnn-cu11==8.5.0.96 in /usr/local/li
b/python3.10/dist-packages (from torch<2,>=1.12.1->alignscore==0.1.3) (8.5.
Requirement already satisfied: nvidia-cublas-cul1==11.10.3.66 in /usr/local/
lib/python3.10/dist-packages (from torch<2,>=1.12.1->alignscore==0.1.3) (11.
10.3.66)
Requirement already satisfied: nvidia-cuda-nvrtc-cul1==11.7.99 in /usr/loca
l/lib/python3.10/dist-packages (from torch<2,>=1.12.1->alignscore==0.1.3) (1
1.7.99)
Requirement already satisfied: wheel in /usr/local/lib/python3.10/dist-packa
ges (from nvidia-cublas-cu11==11.10.3.66->torch<2,>=1.12.1->alignscore==0.1.
3) (0.43.0)
Requirement already satisfied: tokenizers<0.19,>=0.14 in /usr/local/lib/pyth
on3.10/dist-packages (from transformers<5,>=4.20.1->alignscore==0.1.3) (0.1
5.2)
Requirement already satisfied: safetensors>=0.4.1 in /usr/local/lib/python3.
10/dist-packages (from transformers<5,>=4.20.1->alignscore==0.1.3) (0.4.2)
Requirement already satisfied: aiosignal>=1.1.2 in /usr/local/lib/python3.1
0/dist-packages (from aiohttp->datasets<3,>=2.3.2->alignscore==0.1.3) (1.3.
```

Requirement already satisfied: attrs>=17.3.0 in /usr/local/lib/python3.10/dist-packages (from aiohttp->datasets<3,>=2.3.2->alignscore==0.1.3) (23.2.0) Requirement already satisfied: frozenlist>=1.1.1 in /usr/local/lib/python3.1 0/dist-packages (from aiohttp->datasets<3,>=2.3.2->alignscore==0.1.3) (1.4.1)

Requirement already satisfied: multidict<7.0,>=4.5 in /usr/local/lib/python 3.10/dist-packages (from aiohttp->datasets<3,>=2.3.2->alignscore==0.1.3) (6.0.5)

Requirement already satisfied: yarl<2.0,>=1.0 in /usr/local/lib/python3.10/d ist-packages (from aiohttp->datasets<3,>=2.3.2->alignscore==0.1.3) (1.9.4) Requirement already satisfied: async-timeout<5.0,>=4.0 in /usr/local/lib/python3.10/dist-packages (from aiohttp->datasets<3,>=2.3.2->alignscore==0.1.3) (4.0.3)

Requirement already satisfied: cachetools<6.0,>=2.0.0 in /usr/local/lib/pyth on3.10/dist-packages (from google-auth<3,>=1.6.3->tensorboard<3,>=2.12.0->al ignscore==0.1.3) (5.3.3)

Requirement already satisfied: pyasn1-modules>=0.2.1 in /usr/local/lib/pytho n3.10/dist-packages (from google-auth<3,>=1.6.3->tensorboard<3,>=2.12.0->ali gnscore==0.1.3) (0.3.0)

Requirement already satisfied: rsa<5,>=3.1.4 in /usr/local/lib/python3.10/di st-packages (from google-auth<3,>=1.6.3->tensorboard<3,>=2.12.0->alignscore= =0.1.3) (4.9)

Requirement already satisfied: requests—oauthlib>=0.7.0 in /usr/local/lib/py thon3.10/dist—packages (from google—auth—oauthlib<2,>=0.5—>tensorboard<3,>= 2.12.0—>alignscore==0.1.3) (1.4.0)

Requirement already satisfied: annotated-types>=0.4.0 in /usr/local/lib/pyth on3.10/dist-packages (from pydantic!=1.8,!=1.8.1,<3.0.0,>=1.7.4->spacy<4,>= 3.4.0->alignscore==0.1.3) (0.6.0)

Requirement already satisfied: pydantic-core==2.16.3 in /usr/local/lib/pytho n3.10/dist-packages (from pydantic!=1.8,!=1.8.1,<3.0.0,>=1.7.4->spacy<4,>=3.4.0->alignscore==0.1.3) (2.16.3)

Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/py thon3.10/dist-packages (from requests>=2.19.0->datasets<3,>=2.3.2->alignscor e==0.1.3) (3.3.2)

Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (from requests>=2.19.0->datasets<3,>=2.3.2->alignscore==0.1.3) (3.6)

Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3. 10/dist-packages (from requests>=2.19.0->datasets<3,>=2.3.2->alignscore==0. 1.3) (2.0.7)

Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3. 10/dist-packages (from requests>=2.19.0->datasets<3,>=2.3.2->alignscore==0. 1.3) (2024.2.2)

Requirement already satisfied: blis<0.8.0,>=0.7.8 in /usr/local/lib/python3. 10/dist-packages (from thinc<8.3.0,>=8.2.2->spacy<4,>=3.4.0->alignscore==0. 1.3) (0.7.11)

Requirement already satisfied: confection<1.0.0,>=0.0.1 in /usr/local/lib/py thon3.10/dist-packages (from thinc<8.3.0,>=8.2.2->spacy<4,>=3.4.0->alignscor e=0.1.3) (0.1.4)

Requirement already satisfied: cloudpathlib<0.17.0,>=0.7.0 in /usr/local/lib/python3.10/dist-packages (from weasel<0.4.0,>=0.1.0->spacy<4,>=3.4.0->alignscore==0.1.3) (0.16.0)

Requirement already satisfied: MarkupSafe>=2.1.1 in /usr/local/lib/python3.1 0/dist-packages (from werkzeug>=1.0.1->tensorboard<3,>=2.12.0->alignscore== 0.1.3) (2.1.5)

```
Requirement already satisfied: python-dateutil>=2.7.3 in /usr/local/lib/pyth
on3.10/dist-packages (from pandas->datasets<3,>=2.3.2->alignscore==0.1.3)
(2.8.2)
Requirement already satisfied: pytz>=2017.2 in /usr/local/lib/python3.10/dis
t-packages (from pandas->datasets<3,>=2.3.2->alignscore==0.1.3) (2023.4)
Requirement already satisfied: pyasn1<0.6.0,>=0.4.6 in /usr/local/lib/python
3.10/dist-packages (from pyasn1-modules>=0.2.1->google-auth<3,>=1.6.3->tenso
rboard<3,>=2.12.0->alignscore==0.1.3) (0.5.1)
Requirement already satisfied: oauthlib>=3.0.0 in /usr/local/lib/python3.10/
dist-packages (from requests-oauthlib>=0.7.0-ygoogle-auth-oauthlib<2,>=0.5->
tensorboard<3,>=2.12.0->alignscore==0.1.3) (3.2.2)
Building wheels for collected packages: alignscore
  Building wheel for alignscore (pyproject.toml) ... done
  Created wheel for alignscore: filename=alignscore-0.1.3-py3-none-any.whl s
ize=18371 sha256=19de2b0778feae0856e5f6e787f07046ca5c93f3ad758c431c2ecabe947
dd3bd
  Stored in directory: /tmp/pip-ephem-wheel-cache-a1me_gpx/wheels/ee/d8/57/1
c2e3c762866923a4b5d4f13d741d115e8211ea39e8e736188
Successfully built alignscore
Installing collected packages: xxhash, protobuf, jsonlines, dill, multiproce
ss, datasets, pytorch-lightning, alignscore
  Attempting uninstall: protobuf
    Found existing installation: protobuf 3.20.3
    Uninstalling protobuf-3.20.3:
      Successfully uninstalled protobuf-3.20.3
  Attempting uninstall: pytorch-lightning
    Found existing installation: pytorch-lightning 1.6.0
    Uninstalling pytorch-lightning-1.6.0:
      Successfully uninstalled pytorch-lightning-1.6.0
ERROR: pip's dependency resolver does not currently take into account all th
e packages that are installed. This behaviour is the source of the following
dependency conflicts.
google-ai-generativelanguage 0.4.0 requires protobuf!=3.20.0,!=3.20.1,!=4.2
1.0,!=4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you
have protobuf 3.20.0 which is incompatible.
google-api-core 2.11.1 requires protobuf!=3.20.0,!=3.20.1,!=4.21.0,!=4.21.
1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0.dev0,>=3.19.5, but you have pro
tobuf 3.20.0 which is incompatible.
google-cloud-aiplatform 1.43.0 requires protobuf!=3.20.0,!=3.20.1,!=4.21.0,!
=4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you have
protobuf 3.20.0 which is incompatible.
google-cloud-bigquery 3.12.0 requires protobuf!=3.20.0,!=3.20.1,!=4.21.0.!=
4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you have
protobuf 3.20.0 which is incompatible.
google-cloud-bigquery-connection 1.12.1 requires protobuf!=3.20.0,!=3.20.1,!
=4.21.0,!=4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but
you have protobuf 3.20.0 which is incompatible.
google-cloud-bigquery-storage 2.24.0 requires protobuf!=3.20.0,!=3.20.1,!=4.
21.0,!=4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but yo
u have protobuf 3.20.0 which is incompatible.
google-cloud-datastore 2.15.2 requires protobuf!=3.20.0,!=3.20.1,!=4.21.0,!=
4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you have
protobuf 3.20.0 which is incompatible.
google-cloud-firestore 2.11.1 requires protobuf!=3.20.0,!=3.20.1,!=4.21.0,!=
4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you have
```

protobuf 3.20.0 which is incompatible.

```
google-cloud-functions 1.13.3 requires protobuf!=3.20.0,!=3.20.1,!=4.21.0,!=
4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you have
protobuf 3.20.0 which is incompatible.
google-cloud-iam 2.14.3 requires protobuf!=3.20.0,!=3.20.1,!=4.21.0,!=4.21.
1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you have proto
buf 3.20.0 which is incompatible.
google-cloud-language 2.13.3 requires protobuf!=3.20.0,!=3.20.1,!=4.21.0,!=
4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you have
protobuf 3.20.0 which is incompatible.
google-cloud-resource-manager 1.12.3 requires protobuf!=3.20.0,!=3.20.1,!=4.
21.0,!=4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but yo
u have protobuf 3.20.0 which is incompatible.
google-cloud-translate 3.11.3 requires protobuf!=3.20.0,!=3.20.1,!=4.21.0,!=
4.21.1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you have
protobuf 3.20.0 which is incompatible.
googleapis-common-protos 1.63.0 requires protobuf!=3.20.0,!=3.20.1,!=4.21.
1,!=4.21.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0.dev0,>=3.19.5, but you have pro
tobuf 3.20.0 which is incompatible.
grpc-google-iam-v1 0.13.0 requires protobuf!=3.20.0,!=3.20.1,!=4.21.1,!=4.2
1.2,!=4.21.3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.19.5, but you have protobuf 3.2
0.0 which is incompatible.
lens-metric 0.1.1 requires pytorch-lightning==1.6.0, but you have pytorch-li
ghtning 1.9.5 which is incompatible.
tensorflow 2.15.0 requires protobuf!=4.21.0,!=4.21.1,!=4.21.2,!=4.21.3,!=4.2
1.4,!=4.21.5,<5.0.0 \, \text{dev},>=3.20.3, but you have protobuf 3.20.0 \, \text{which} is incom
patible.
tensorflow-metadata 1.14.0 requires protobuf<4.21,>=3.20.3, but you have pro
tobuf 3.20.0 which is incompatible.
Successfully installed alignscore-0.1.3 datasets-2.18.0 dill-0.3.8 jsonlines
-2.0.0 multiprocess-0.70.16 protobuf-3.20.0 pytorch-lightning-1.9.5 xxhash-
3.4.1
Collecting en-core-web-sm==3.7.1
  Downloading https://github.com/explosion/spacy-models/releases/download/en
core web sm-3.7.1/en core web sm-3.7.1-py3-none-any.whl (12.8 MB)
                                           - 12.8/12.8 MB 31.5 MB/s eta 0:0
0:00
Requirement already satisfied: spacy<3.8.0,>=3.7.2 in /usr/local/lib/python
3.10/dist-packages (from en-core-web-sm==3.7.1) (3.7.4)
Requirement already satisfied: spacy-legacy<3.1.0,>=3.0.11 in /usr/local/li
b/python3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1)
(3.0.12)
Requirement already satisfied: spacy-loggers<2.0.0,>=1.0.0 in /usr/local/li
b/python3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1)
(1.0.5)
Requirement already satisfied: murmurhash<1.1.0,>=0.28.0 in /usr/local/lib/p
ython3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1)
(1.0.10)
Requirement already satisfied: cymem<2.1.0,>=2.0.2 in /usr/local/lib/python
3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (2.0.8)
Requirement already satisfied: preshed<3.1.0,>=3.0.2 in /usr/local/lib/pytho
n3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (3.0.
9)
Requirement already satisfied: thinc<8.3.0,>=8.2.2 in /usr/local/lib/python
3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (8.2.3)
Requirement already satisfied: wasabi<1.2.0,>=0.9.1 in /usr/local/lib/python
3.10/dist-packages (from spacy<3.8.0,>=3.7.2-sen-core-web-sm==<math>3.7.1) (1.1.2)
```

Requirement already satisfied: srsly<3.0.0,>=2.4.3 in /usr/local/lib/python 3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (2.4.8) Requirement already satisfied: catalogue<2.1.0,>=2.0.6 in /usr/local/lib/pyt hon3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (2.0.10)

Requirement already satisfied: weasel<0.4.0,>=0.1.0 in /usr/local/lib/python 3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (0.3.4) Requirement already satisfied: typer<0.10.0,>=0.3.0 in /usr/local/lib/python 3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (0.9.0) Requirement already satisfied: smart-open<7.0.0,>=5.2.1 in /usr/local/lib/py thon3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (6.4.0)

Requirement already satisfied: tqdm<5.0.0,>=4.38.0 in /usr/local/lib/python 3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (4.66. 2)

Requirement already satisfied: requests<3.0.0,>=2.13.0 in /usr/local/lib/pyt hon3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (2.3 1.0)

Requirement already satisfied: pydantic!=1.8,!=1.8.1,<3.0.0,>=1.7.4 in /usr/local/lib/python3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm ==3.7.1) (2.6.4)

Requirement already satisfied: jinja2 in /usr/local/lib/python3.10/dist-pack ages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (3.1.3)

Requirement already satisfied: setuptools in /usr/local/lib/python3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (67.7.2)

Requirement already satisfied: packaging>=20.0 in /usr/local/lib/python3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (24.0)

Requirement already satisfied: langcodes<4.0.0,>=3.2.0 in /usr/local/lib/pyt hon3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (3.3.0)

Requirement already satisfied: numpy>=1.19.0 in /usr/local/lib/python3.10/dist-packages (from spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (1.25.2)

Requirement already satisfied: annotated-types>=0.4.0 in /usr/local/lib/pyth on3.10/dist-packages (from pydantic!=1.8,!=1.8.1,<3.0.0,>=1.7.4->spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (0.6.0)

Requirement already satisfied: pydantic-core==2.16.3 in /usr/local/lib/pytho n3.10/dist-packages (from pydantic!=1.8,!=1.8.1,<3.0.0,>=1.7.4->spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (2.16.3)

Requirement already satisfied: typing-extensions>=4.6.1 in /usr/local/lib/py thon3.10/dist-packages (from pydantic!=1.8,!=1.8.1,<3.0.0,>=1.7.4->spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (4.10.0)

Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/py thon3.10/dist-packages (from requests<3.0.0,>=2.13.0->spacy<3.8.0,>=3.7.2->e n-core-web-sm==3.7.1) (3.3.2)

Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dis t-packages (from requests<3.0.0,>=2.13.0->spacy<3.8.0,>=3.7.2->en-core-web-s m==3.7.1) (3.6)

Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3. 10/dist-packages (from requests<3.0.0,>=2.13.0->spacy<3.8.0,>=3.7.2->en-core -web-sm==3.7.1) (2.0.7)

Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3. 10/dist-packages (from requests<3.0.0,>=2.13.0->spacy<3.8.0,>=3.7.2->en-core -web-sm==3.7.1) (2024.2.2)

Requirement already satisfied: blis<0.8.0,>=0.7.8 in /usr/local/lib/python3. 10/dist-packages (from thinc<8.3.0,>=8.2.2->spacy<3.8.0,>=3.7.2->en-core-web -sm==3.7.1) (0.7.11)

Requirement already satisfied: confection<1.0.0,>=0.0.1 in /usr/local/lib/py thon3.10/dist-packages (from thinc<8.3.0,>=8.2.2->spacy<3.8.0,>=3.7.2->en-co re-web-sm==3.7.1) (0.1.4)

Requirement already satisfied: click<9.0.0,>=7.1.1 in /usr/local/lib/python 3.10/dist-packages (from typer<0.10.0,>=0.3.0->spacy<3.8.0,>=3.7.2->en-coreweb-sm==3.7.1) (8.1.7)

Requirement already satisfied: cloudpathlib<0.17.0,>=0.7.0 in /usr/local/lib/python3.10/dist-packages (from weasel<0.4.0,>=0.1.0->spacy<3.8.0,>=3.7.2-> en-core-web-sm==3.7.1) (0.16.0)

Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.10/dist-packages (from jinja2->spacy<3.8.0,>=3.7.2->en-core-web-sm==3.7.1) (2.1.5)

✓ Download and installation successful

You can now load the package via spacy.load('en_core_web_sm')

△ Restart to reload dependencies

If you are in a Jupyter or Colab notebook, you may need to restart Python in order to load all the package's dependencies. You can do this by selecting the

'Restart kernel' or 'Restart runtime' option.

--2024-03-15 20:57:45-- https://huggingface.co/yzha/AlignScore/resolve/main/AlignScore-base.ckpt

Resolving huggingface.co (huggingface.co)... 18.172.134.24, 18.172.134.88, 1 8.172.134.4, ...

Connecting to huggingface.co (huggingface.co)|18.172.134.24|:443... connecte d.

HTTP request sent, awaiting response... 302 Found

Location: https://cdn-lfs.huggingface.co/repos/93/bc/93bca230c826c644cb452c5 f908ce8e237cf303fb128b961ef99a3ac2ccfb4d6/6aedb637f0596ab29baef91e94466a57f0 32e02feea654978518919fe0981607?response-content-disposition=attachment%3B+filename*%3DUTF-8%27%27AlignScore-base.ckpt%3B+filename%3D%22AlignScore-base.ckpt%22%3B&Expires=1710795465&Policy=eyJTdGF0ZW1lbnQi0lt7IkNvbmRpdGlvbiI6eyJE YXR1TGVzc1RoYW4iOnsiQVdTOkVwb2NoVGltZSI6MTcxMDc5NTQ2NX19LCJSZXNvdXJjZSI6Imh0dHBz0i8vY2RuLWxmcy5odWdnaW5nZmFjZS5jby9yZXBvcy85My9iYy85M2JjYTIzMGM4MjZjNjQ0Y2I0NTJjNWY5MDhjZThlMjM3Y2YzMDNmYjEy0GI5NjFlZjk5YTNhYzJjY2ZiNGQ2LzZhZWRiNjM3ZjA10TZhYjI5YmFlZjkxZTk0NDY2YTU3ZjAzMmUwMmZlZWE2NTQ5Nzg1MTg5MTlmZTA50DE2MDc%7EcmVzcG9uc2UtY29udGVudC1kaXNwb3NpdGlvbj0qIn1dfQ_&Signature=mfmCbyTzM0IBSe1jqro0%7EXvky4X0R3N7qhVxhicVzbEyq7vTRDIJOSQz%7EFPDY2CdTlbhJlXknrDddbvGL0DDM0UyoapProI3t-pzxfHm5V70rJLFyAyCVjX3-lR18lt93RTwea1wZjF97sZzB7qIawcZchkKLEV5i4TkV9xNp5HpJLmYavc1Vy8FGtXMq0FdQlnEmScgNJiE0rFyal0WajRA9YW8%7EJJ08zy6H1QNzIMQnwRoqzmfcNe4MDjkCjWsXMWkwk0kptMStBT-NT9g0vrr6YTr6gUWdrDrQyYAuz7PyLUemCJfxhV-0zks2KqIxK0PbpRy5TjklIhoSNTWMw_&Key-Pair-Id=KVTP0A1DKRTAX [following]

--2024-03-15 20:57:45-- https://cdn-lfs.huggingface.co/repos/93/bc/93bca230 c826c644cb452c5f908ce8e237cf303fb128b961ef99a3ac2ccfb4d6/6aedb637f0596ab29ba ef91e94466a57f032e02feea654978518919fe0981607?response-content-disposition=a ttachment%3B+filename*%3DUTF-8%27%27AlignScore-base.ckpt%3B+filename*3D%22AlignScore-base.ckpt%22%3B&Expires=1710795465&Policy=eyJTdGF0ZW1lbnQiOlt7IkNvb mRpdGlvbiI6eyJEYXRlTGVzc1RoYW4iOnsiQVdT0kVwb2NoVGltZSI6MTcxMDc5NTQ2NX19LCJSZ XNvdXJjZSI6Imh0dHBz0i8vY2RuLWxmcy5odWdnaW5nZmFjZS5jby9yZXBvcy85My9iYy85M2JjY TIzMGM4MjZjNjQ0Y2I0NTJjNWY5MDhjZThlMjM3Y2YzMDNmYjEy0GI5NjFlZjk5YTNhYzJjY2ZiN GQ2LzZhZWRiNjM3ZjA10TZhYjI5YmFlZjkxZTk0NDY2YTU3ZjAzMmUwMmZlZWE2NTQ5Nzg1MTg5M TlmZTA50DE2MDc%7EcmVzcG9uc2UtY29udGVudC1kaXNwb3NpdGlvbj0qIn1dfQ_&Signature= mfmCbyTzM0IBSe1jqro0%7EXvky4X0R3N7qhVxhicVzbEyq7vTRDIJ0SQz%7EFPDY2CdTlbhJlXk nrDddbvGL0DDM0UyoapProI3t-pzxfHm5V70rJLFyAyCVjX3-lR18lt93RTwea1wZjF97sZzB7qI awcZchkKLEV5i4TkV9xNp5HpJLmYavc1Vy8FGtXMq0FdQlnEmScgNJiE0rFyal0WajRA9YW8%7EJ J08zy6H1QNzIMQnwRoqzmfcNe4MDjkCjWsXMWkwk0kptMStBT-NT9g0vrr6YTr6gUWdrDrQyYAuz 7PyLUemCJfxhV-0zks2KqIxK0PbpRy5TjklIhoSNTWMw_&Key-Pair-Id=KVTP0A1DKRTAX

```
Resolving cdn-lfs.huggingface.co (cdn-lfs.huggingface.co)... 18.154.185.27, 18.154.185.26, 18.154.185.94, ...

Connecting to cdn-lfs.huggingface.co (cdn-lfs.huggingface.co)|18.154.185.27 |:443... connected.

HTTP request sent, awaiting response... 200 OK

Length: 1966965771 (1.8G) [binary/octet-stream]

Saving to: './AlignScore/AlignScore-base.ckpt'

AlignScore-base.ckp 100%[=============]] 1.83G 243MB/s in 9.9s

2024-03-15 20:57:55 (190 MB/s) - './AlignScore/AlignScore-base.ckpt' saved [1966965771/1966965771]
```

2. Install the environment dependencies

In [6]: #set up the enviornment for running evaluate.py
!pip install -r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/req

tion_scripts/requirements.txt (line 3))
Downloading rouge_score-0.1.2.tar.gz (17 kB)

Preparing metadata (setup.py) ... done

Collecting bert-score (from -r /content/drive/MyDrive/BioLaySumm2024-evaluat ion scripts/requirements.txt (line 4))

Downloading bert score-0.3.13-py3-none-any.whl (61 kB)

----- 61.1/61.1 kB 5.7 MB/s eta 0:0

0:00

Collecting summac (from -r /content/drive/MyDrive/BioLaySumm2024-evaluation_ scripts/requirements.txt (line 5))

Downloading summac-0.0.4-py3-none-any.whl (30 kB)

Collecting pyphen (from textstat->-r /content/drive/MyDrive/BioLaySumm2024-e valuation scripts/requirements.txt (line 1))

Downloading pyphen-0.14.0-py3-none-any.whl (2.0 MB)

_____ 2.0/2.0 MB 11.7 MB/s eta 0:00:

00

Requirement already satisfied: absl-py in /usr/local/lib/python3.10/dist-pac kages (from rouge-score->-r /content/drive/MyDrive/BioLaySumm2024-evaluation scripts/requirements.txt (line 3)) (1.4.0)

Requirement already satisfied: nltk in /usr/local/lib/python3.10/dist-packag es (from rouge-score->-r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 3)) (3.8.1)

Requirement already satisfied: six>=1.14.0 in /usr/local/lib/python3.10/dist -packages (from rouge-score->-r /content/drive/MyDrive/BioLaySumm2024-evalua tion_scripts/requirements.txt (line 3)) (1.16.0)

Requirement already satisfied: torch>=1.0.0 in /usr/local/lib/python3.10/dis t-packages (from bert-score->-r /content/drive/MyDrive/BioLaySumm2024-evalua tion_scripts/requirements.txt (line 4)) (1.13.1)

Requirement already satisfied: pandas>=1.0.1 in /usr/local/lib/python3.10/dist-packages (from bert-score->-r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 4)) (1.1.5)

Requirement already satisfied: transformers>=3.0.0 in /usr/local/lib/python 3.10/dist-packages (from bert-score->-r /content/drive/MyDrive/BioLaySumm202 4-evaluation_scripts/requirements.txt (line 4)) (4.38.2)

Requirement already satisfied: requests in /usr/local/lib/python3.10/dist-pa ckages (from bert-score->-r /content/drive/MyDrive/BioLaySumm2024-evaluation _scripts/requirements.txt (line 4)) (2.31.0)

Requirement already satisfied: tqdm>=4.31.1 in /usr/local/lib/python3.10/dis t-packages (from bert-score->-r /content/drive/MyDrive/BioLaySumm2024-evalua tion scripts/requirements.txt (line 4)) (4.66.2)

Requirement already satisfied: matplotlib in /usr/local/lib/python3.10/dist-packages (from bert-score->-r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 4)) (3.7.1)

Requirement already satisfied: packaging>=20.9 in /usr/local/lib/python3.10/dist-packages (from bert-score->-r /content/drive/MyDrive/BioLaySumm2024-eva luation scripts/requirements.txt (line 4)) (24.0)

Collecting huggingface-hub<=0.17.0 (from summac->-r /content/drive/MyDrive/B

294.8/294.8 kB 27.3 MB/s eta

0:00:00

Requirement already satisfied: sentencepiece in /usr/local/lib/python3.10/di st-packages (from summac->-r /content/drive/MyDrive/BioLaySumm2024-evaluatio n_scripts/requirements.txt (line 5)) (0.1.99)

Requirement already satisfied: protobuf in /usr/local/lib/python3.10/dist-pa ckages (from summac->-r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 5)) (3.20.0)

Requirement already satisfied: filelock in /usr/local/lib/python3.10/dist-pa ckages (from huggingface-hub<=0.17.0->summac->-r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 5)) (3.13.1)

Requirement already satisfied: fsspec in /usr/local/lib/python3.10/dist-pack ages (from huggingface-hub<=0.17.0->summac->-r /content/drive/MyDrive/BioLay Summ2024-evaluation_scripts/requirements.txt (line 5)) (2023.6.0)

Requirement already satisfied: pyyaml>=5.1 in /usr/local/lib/python3.10/dist -packages (from huggingface-hub<=0.17.0->summac->-r /content/drive/MyDrive/B ioLaySumm2024-evaluation scripts/requirements.txt (line 5)) (6.0.1)

Requirement already satisfied: typing-extensions>=3.7.4.3 in /usr/local/lib/python3.10/dist-packages (from huggingface-hub<=0.17.0->summac->-r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 5)) (4.10.0)

Requirement already satisfied: click in /usr/local/lib/python3.10/dist-packa ges (from nltk->rouge-score->-r /content/drive/MyDrive/BioLaySumm2024-evalua tion_scripts/requirements.txt (line 3)) (8.1.7)

Requirement already satisfied: joblib in /usr/local/lib/python3.10/dist-pack ages (from nltk->rouge-score->-r /content/drive/MyDrive/BioLaySumm2024-evalu ation_scripts/requirements.txt (line 3)) (1.3.2)

Requirement already satisfied: regex>=2021.8.3 in /usr/local/lib/python3.10/dist-packages (from nltk->rouge-score->-r /content/drive/MyDrive/BioLaySumm2 024-evaluation scripts/requirements.txt (line 3)) (2023.12.25)

Requirement already satisfied: python-dateutil>=2.7.3 in /usr/local/lib/pyth on3.10/dist-packages (from pandas>=1.0.1->bert-score->-r /content/drive/MyDr ive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 4)) (2.8.2)

Requirement already satisfied: pytz>=2017.2 in /usr/local/lib/python3.10/dis t-packages (from pandas>=1.0.1->bert-score->-r /content/drive/MyDrive/BioLay Summ2024-evaluation scripts/requirements.txt (line 4)) (2023.4)

Requirement already satisfied: nvidia-cuda-runtime-cu11==11.7.99 in /usr/loc al/lib/python3.10/dist-packages (from torch>=1.0.0->bert-score->-r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 4)) (11.7.99)

Requirement already satisfied: nvidia-cudnn-cu11==8.5.0.96 in /usr/local/lib/python3.10/dist-packages (from torch>=1.0.0->bert-score->-r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 4)) (8.5.0.96)

Requirement already satisfied: nvidia-cublas-cu11==11.10.3.66 in /usr/local/lib/python3.10/dist-packages (from torch>=1.0.0->bert-score->-r /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 4)) (11.10.3.66)

Requirement already satisfied: nvidia-cuda-nvrtc-cu11==11.7.99 in /usr/loca l/lib/python3.10/dist-packages (from torch>=1.0.0->bert-score->-r /content/d rive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 4)) (1 1.7.99)

Requirement already satisfied: setuptools in /usr/local/lib/python3.10/dist-packages (from nvidia-cublas-cu11==11.10.3.66->torch>=1.0.0->bert-score->-r

```
/content/drive/MyDrive/BioLaySumm2024-evaluation scripts/requirements.txt (l
ine 4)) (67.7.2)
Requirement already satisfied: wheel in /usr/local/lib/python3.10/dist-packa
ges (from nvidia-cublas-cu11==11.10.3.66->torch>=1.0.0->bert-score->-r /cont
ent/drive/MyDrive/BioLaySumm2024-evaluation_scripts/requirements.txt (line
4)) (0.43.0)
INFO: pip is looking at multiple versions of transformers to determine which
version is compatible with other requirements. This could take a while.
Collecting transformers>=3.0.0 (from bert-score->-r /content/drive/MyDrive/B
ioLaySumm2024-evaluation scripts/requirements.txt (line 4))
  Downloading transformers-4.38.1-py3-none-any.whl (8.5 MB)
                                      8.5/8.5 MB 30.6 MB/s eta 0:00:
00
  Downloading transformers-4.38.0-py3-none-any.whl (8.5 MB)
                                 8.5/8.5 MB 32.9 MB/s eta 0:00:
00
  Downloading transformers-4.37.2-py3-none-any.whl (8.4 MB)
                                     8.4/8.4 MB 61.0 MB/s eta 0:00:
  Downloading transformers-4.37.1-py3-none-any.whl (8.4 MB)
                                 8.4/8.4 MB 60.7 MB/s eta 0:00:
00
  Downloading transformers-4.37.0-py3-none-any.whl (8.4 MB)
                                        ---- 8.4/8.4 MB 53.2 MB/s eta 0:00:
00
  Downloading transformers-4.36.2-py3-none-any.whl (8.2 MB)
                                     8.2/8.2 MB 53.9 MB/s eta 0:00:
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  Downloading transformers-4.36.1-py3-none-any.whl (8.3 MB)
                                     8.3/8.3 MB 61.1 MB/s eta 0:00:
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INFO: pip is looking at multiple versions of transformers to determine which
version is compatible with other requirements. This could take a while.
  Downloading transformers-4.36.0-py3-none-any.whl (8.2 MB)
                                      8.2/8.2 MB 52.6 MB/s eta 0:00:
00
  Downloading transformers-4.35.2-py3-none-any.whl (7.9 MB)
                                 7.9/7.9 MB 50.6 MB/s eta 0:00:
Requirement already satisfied: tokenizers<0.19,>=0.14 in /usr/local/lib/pyth
on3.10/dist-packages (from transformers>=3.0.0->bert-score->-r /content/driv
e/MyDrive/BioLaySumm2024-evaluation scripts/requirements.txt (line 4)) (0.1
5.2)
Requirement already satisfied: safetensors>=0.3.1 in /usr/local/lib/python3.
10/dist-packages (from transformers>=3.0.0->bert-score->-r /content/drive/My
Drive/BioLaySumm2024-evaluation_scripts/requirements.txt (line 4)) (0.4.2)
Requirement already satisfied: contourpy>=1.0.1 in /usr/local/lib/python3.1
0/dist-packages (from matplotlib->bert-score->-r /content/drive/MyDrive/BioL
aySumm2024—evaluation scripts/requirements.txt (line 4)) (1.2.0)
Requirement already satisfied: cycler>=0.10 in /usr/local/lib/python3.10/dis
t-packages (from matplotlib->bert-score->-r /content/drive/MyDrive/BioLaySum
m2024-evaluation_scripts/requirements.txt (line 4)) (0.12.1)
Requirement already satisfied: fonttools>=4.22.0 in /usr/local/lib/python3.1
0/dist-packages (from matplotlib->bert-score->-r /content/drive/MyDrive/BioL
aySumm2024-evaluation scripts/requirements.txt (line 4)) (4.49.0)
Requirement already satisfied: kiwisolver>=1.0.1 in /usr/local/lib/python3.1
```

```
0/dist-packages (from matplotlib->bert-score->-r /content/drive/MyDrive/BioL
       aySumm2024—evaluation scripts/requirements.txt (line 4)) (1.4.5)
       Requirement already satisfied: pillow>=6.2.0 in /usr/local/lib/python3.10/di
       st-packages (from matplotlib->bert-score->-r /content/drive/MyDrive/BioLaySu
       mm2024-evaluation_scripts/requirements.txt (line 4)) (9.4.0)
       Requirement already satisfied: pyparsing>=2.3.1 in /usr/local/lib/python3.1
       0/dist-packages (from matplotlib->bert-score->-r /content/drive/MyDrive/BioL
       aySumm2024—evaluation scripts/requirements.txt (line 4)) (3.1.2)
       Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/py
       thon3.10/dist-packages (from requests->bert-score->-r /content/drive/MyDriv
       e/BioLaySumm2024-evaluation_scripts/requirements.txt (line 4)) (3.3.2)
       Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dis
       t-packages (from requests->bert-score->-r /content/drive/MyDrive/BioLaySumm2
       024-evaluation scripts/requirements.txt (line 4)) (3.6)
       Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.
       10/dist-packages (from requests->bert-score->-r /content/drive/MyDrive/BioLa
       ySumm2024-evaluation_scripts/requirements.txt (line 4)) (2.0.7)
       Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.
       10/dist-packages (from requests->bert-score->-r /content/drive/MyDrive/BioLa
       ySumm2024-evaluation scripts/requirements.txt (line 4)) (2024.2.2)
       Building wheels for collected packages: rouge-score
         Building wheel for rouge-score (setup.py) ... done
         Created wheel for rouge-score: filename=rouge score-0.1.2-py3-none-any.whl
       size=24933 sha256=02cda55227583ce98ff66937b49f78441dbf8e66a132cc2bcb1166ceb3
       94a636
         Stored in directory: /root/.cache/pip/wheels/5f/dd/89/461065a73be61a532ff8
       599a28e9beef17985c9e9c31e541b4
       Successfully built rouge-score
       Installing collected packages: pyphen, textstat, rouge-score, huggingface-hu
       b, transformers, summac, bert-score
         Attempting uninstall: huggingface-hub
           Found existing installation: huggingface-hub 0.20.3
           Uninstalling huggingface-hub-0.20.3:
             Successfully uninstalled huggingface-hub-0.20.3
         Attempting uninstall: transformers
           Found existing installation: transformers 4.38.2
           Uninstalling transformers-4.38.2:
             Successfully uninstalled transformers-4.38.2
       ERROR: pip's dependency resolver does not currently take into account all th
       e packages that are installed. This behaviour is the source of the following
       dependency conflicts.
       datasets 2.18.0 requires huggingface-hub>=0.19.4, but you have huggingface-h
       ub 0.17.0 which is incompatible.
       lens-metric 0.1.1 requires pytorch-lightning==1.6.0, but you have pytorch-li
       ghtning 1.9.5 which is incompatible.
       Successfully installed bert-score-0.3.13 huggingface-hub-0.17.0 pyphen-0.14.
       0 rouge-score-0.1.2 summac-0.0.4 textstat-0.7.3 transformers-4.35.2
In [7]: # Setting environment variable such that the result are deterministic
        import os
```

3. Evaluation

os.environ['CUBLAS WORKSPACE CONFIG'] = ':4096:8'

- It will take around 12 hours to run on T4.
- The outputs will be saved in the root directory.

Provided evaluation code:

evaluate.py

Calling the code in nb:

!python PATH/TO/evaluate.py /path/to/predicted/summaries
/path/to/validation/data

Outputs:

- 1. /content/summac_conv_vitc_sent_perc_e.bin
- 2. /content/elife_scores.txt
- 3. /content/plos_scores.txt
- 4. /content/scores.txt

In []: !python /content/drive/MyDrive/BioLaySumm2024-evaluation_scripts/evaluate.py

```
[nltk data] Downloading package punkt to /root/nltk data...
              Unzipping tokenizers/punkt.zip.
[nltk data]
Downloading tokenizer config.json: 100% 25.0/25.0 [00:00<00:00, 113kB/s]
Downloading config.json: 100% 482/482 [00:00<00:00, 3.01MB/s]
Downloading vocab.json: 100% 899k/899k [00:00<00:00, 10.2MB/s]
Downloading merges.txt: 100% 456k/456k [00:00<00:00, 18.3MB/s]
Downloading tokenizer.json: 100% 1.36M/1.36M [00:00<00:00, 18.5MB/s]
Downloading model.safetensors: 100% 1.42G/1.42G [00:10<00:00, 134MB/s]
Some weights of RobertaModel were not initialized from the model checkpoint
at roberta-large and are newly initialized: ['roberta.pooler.dense.weight',
'roberta.pooler.dense.bias']
You should probably TRAIN this model on a down-stream task to be able to use
it for predictions and inference.
calculating scores...
computing bert embedding.
100% 8/8 [00:29<00:00, 3.64s/it]
computing greedy matching.
100% 4/4 [00:00<00:00, 14.60it/s]
done in 29.44 seconds, 8.19 sentences/sec
Lightning automatically upgraded your loaded checkpoint from v1.6.0 to v1.9.
5. To apply the upgrade to your files permanently, run `python -m pytorch_li
qhtning.utilities.upgrade checkpoint --file models/LENS/LENS/checkpoints/epo
ch=5-step=6102.ckpt`
/usr/local/lib/python3.10/dist-packages/pytorch lightning/core/saving.py:25
5: UserWarning: Found keys that are not in the model state dict but in the c
heckpoint: ['encoder.model.embeddings.position_ids']
  rank zero warn(
/usr/local/lib/python3.10/dist-packages/pytorch lightning/trainer/connector
s/accelerator_connector.py:478: LightningDeprecationWarning: Setting `Traine
r(qpus=1) is deprecated in v1.7 and will be removed in v2.0. Please use `Tr
ainer(accelerator='gpu', devices=1)` instead.
  rank zero deprecation(
GPU available: True (cuda), used: True
TPU available: False, using: 0 TPU cores
IPU available: False, using: 0 IPUs
HPU available: False, using: 0 HPUs
LOCAL RANK: 0 - CUDA VISIBLE DEVICES: [0]
Predicting DataLoader 0: 100% 31/31 [00:56<00:00, 1.82s/it]
Downloading config.json: 100% 481/481 [00:00<00:00, 2.14MB/s]
Downloading model.safetensors: 100% 499M/499M [00:04<00:00, 118MB/s]
Some weights of RobertaModel were not initialized from the model checkpoint
at roberta-base and are newly initialized: ['roberta.pooler.dense.weight',
'roberta.pooler.dense.bias']
You should probably TRAIN this model on a down-stream task to be able to use
it for predictions and inference.
Lightning automatically upgraded your loaded checkpoint from v1.7.7 to v1.9.
5. To apply the upgrade to your files permanently, run `python -m pytorch_li
ghtning.utilities.upgrade_checkpoint --file models/AlignScore/AlignScore-bas
e.ckpt`
Some weights of RobertaModel were not initialized from the model checkpoint
at roberta-base and are newly initialized: ['roberta.pooler.dense.weight',
'roberta.pooler.dense.bias']
You should probably TRAIN this model on a down-stream task to be able to use
it for predictions and inference.
```

/usr/local/lib/python3.10/dist-packages/pytorch lightning/core/saving.py:25

```
5: UserWarning: Found keys that are not in the model state dict but in the c
heckpoint: ['base model.embeddings.position ids']
  rank zero warn(
Downloading tokenizer config.json: 100% 25.0/25.0 [00:00<00:00, 156kB/s]
Downloading vocab.json: 100% 899k/899k [00:00<00:00, 13.5MB/s]
Downloading merges.txt: 100% 456k/456k [00:00<00:00, 42.4MB/s]
Downloading tokenizer.json: 100% 1.36M/1.36M [00:00<00:00, 44.5MB/s]
Evaluating: 100% 241/241 [44:23<00:00, 11.05s/it]
--2024-03-15 21:46:44-- https://github.com/tingofurro/summac/raw/master/sum
mac conv vitc sent perc e.bin
Resolving github.com (github.com)... 140.82.113.4
Connecting to github.com (github.com)|140.82.113.4|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://raw.githubusercontent.com/tingofurro/summac/master/summac
conv vitc sent perc e.bin [following]
--2024-03-15 21:46:44-- https://raw.githubusercontent.com/tingofurro/summa
c/master/summac_conv_vitc_sent_perc_e.bin
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.1
11.133, 185.199.108.133, 185.199.110.133, ...
Connecting to raw.githubusercontent.com (raw.githubusercontent.com) [185.199.
111.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1811 (1.8K) [application/octet-stream]
Saving to: 'summac_conv_vitc_sent_perc_e.bin'
summac conv vitc se 100%[===========] 1.77K --.-KB/s
                                                                    in 0s
2024-03-15 21:46:44 (34.4 MB/s) - 'summac conv vitc sent perc e.bin' saved
[1811/1811]
<All keys matched successfully>
Downloading tokenizer config.json: 100% 217/217 [00:00<00:00, 1.27MB/s]
Downloading config.json: 100% 1.09k/1.09k [00:00<00:00, 5.94MB/s]
Downloading spiece.model: 100% 760k/760k [00:00<00:00, 11.3MB/s]
Downloading (...)cial_tokens_map.json: 100% 156/156 [00:00<00:00, 638kB/s]
Downloading model.safetensors: 100% 235M/235M [00:01<00:00, 186MB/s]
/usr/local/lib/python3.10/dist-packages/summac/model summac.py:298: UserWarn
ing: Creating a tensor from a list of numpy.ndarrays is extremely slow. Plea
se consider converting the list to a single numpy.ndarray with numpy.array()
before converting to a tensor. (Triggered internally at ../torch/csrc/utils/
tensor new.cpp:230.)
  histograms = torch.FloatTensor(histograms).to(self.device)
Some weights of RobertaModel were not initialized from the model checkpoint
at roberta-large and are newly initialized: ['roberta.pooler.dense.weight',
'roberta.pooler.dense.bias']
You should probably TRAIN this model on a down-stream task to be able to use
it for predictions and inference.
calculating scores...
computing bert embedding.
100% 43/43 [02:35<00:00, 3.62s/it]
computing greedy matching.
100% 22/22 [00:01<00:00, 15.42it/s]
done in 157.29 seconds, 8.75 sentences/sec
Lightning automatically upgraded your loaded checkpoint from v1.6.0 to v1.9.
5. To apply the upgrade to your files permanently, run `python -m pytorch_li
qhtning.utilities.upgrade checkpoint --file models/LENS/LENS/checkpoints/epo
```

```
ch=5-step=6102.ckpt`
/usr/local/lib/python3.10/dist-packages/pytorch lightning/core/saving.py:25
5: UserWarning: Found keys that are not in the model state dict but in the c
heckpoint: ['encoder.model.embeddings.position_ids']
  rank zero warn(
/usr/local/lib/python3.10/dist-packages/pytorch lightning/trainer/connector
s/accelerator_connector.py:478: LightningDeprecationWarning: Setting `Traine
r(qpus=1) is deprecated in v1.7 and will be removed in v2.0. Please use `Tr
ainer(accelerator='gpu', devices=1)` instead.
  rank zero deprecation(
GPU available: True (cuda), used: True
TPU available: False, using: 0 TPU cores
IPU available: False, using: 0 IPUs
HPU available: False, using: 0 HPUs
LOCAL_RANK: 0 - CUDA_VISIBLE_DEVICES: [0]
Predicting: 0it [00:00, ?it/s]huggingface/tokenizers: The current process ju
st got forked, after parallelism has already been used. Disabling parallelis
m to avoid deadlocks...
To disable this warning, you can either:
        - Avoid using `tokenizers` before the fork if possible
        - Explicitly set the environment variable TOKENIZERS PARALLELISM=(tr
ue | false)
huggingface/tokenizers: The current process just got forked, after paralleli
sm has already been used. Disabling parallelism to avoid deadlocks...
To disable this warning, you can either:
        - Avoid using `tokenizers` before the fork if possible
        - Explicitly set the environment variable TOKENIZERS PARALLELISM=(tr
ue | false)
Predicting DataLoader 0: 100% 172/172 [06:08<00:00, 2.14s/it]
Some weights of RobertaModel were not initialized from the model checkpoint
at roberta-base and are newly initialized: ['roberta.pooler.dense.weight',
'roberta.pooler.dense.bias']
You should probably TRAIN this model on a down-stream task to be able to use
it for predictions and inference.
Lightning automatically upgraded your loaded checkpoint from v1.7.7 to v1.9.
5. To apply the upgrade to your files permanently, run `python -m pytorch_li
qhtning.utilities.upgrade checkpoint --file models/AlignScore/AlignScore-bas
e.ckpt`
Some weights of RobertaModel were not initialized from the model checkpoint
at roberta-base and are newly initialized: ['roberta.pooler.dense.weight',
'roberta.pooler.dense.bias']
You should probably TRAIN this model on a down-stream task to be able to use
it for predictions and inference.
/usr/local/lib/python3.10/dist-packages/pytorch_lightning/core/saving.py:25
5: UserWarning: Found keys that are not in the model state dict but in the c
heckpoint: ['base model.embeddings.position ids']
  rank zero warn(
Evaluating: 100% 1376/1376 [4:48:27<00:00, 12.58s/it]
<All keys matched successfully>
```