CnOCR 的安装FAQ

“要站上巨人的肩膀，首先得准备好梯子”

Breezedeus, 2022.09 →

Python 是一门站在巨人肩膀上的语言

巨人们：`import *`

```
import os
import re
import sys
import json
import torch
import jiwer
import logging
import librosa
import datasets
import itertools
import torchaudio
import numpy as np
import transformers
import pandas as pd
from torch import nn
import seaborn as sns
import torch.nn as nn
import soundfile as sf
import arabic_reshaper
from pyarabic import araby
from packaging import version
from pydub import AudioSegment
import matplotlib.pyplot as plt
from pydub.utils import mediainfo
from torch.nn import functional as F
from contextlib import contextmanager
from bidi.algorithm import get_display
from lang_trans.arabic import buckwalter
from dataclasses import dataclass, field
from datasets import load_dataset, Dataset
from sklearn.metrics import accuracy_score
from argparse import ArgumentParser
from typing import Any, Dict, List, Optional, Union
from transformers import HfArgumentParser,TrainingArguments
from sklearn.metrics import classification_report, confusion_matrix
from transformers.trainer_utils import get_last_checkpoint, is_main_process
from transformers import is_apex_available,set_seed ,Trainer,Wav2Vec2FeatureExtractor
from transformers import Wav2Vec2ForCTC, Wav2Vec2Processor, Wav2Vec2Model,Wav2Vec2PreTrainedModel
% matplotlib inline
```

Contents

- 从 0 开始安装 CnOCR
- 如何跳过安装，直接使用
- 使用过程遇到的一些问题

从 0 开始安装 CnOCR

Linux/Mac 环境

一、需要首先安装5个系统包（非Python）

- python3-opencv
- libglib2.0-0
- libsm6
- libxext6
- libxrender-dev

比如 Ubuntu 下，直接使用 `apt install` 安装前面5个包即可：

```
$ apt install -y python3-opencv libglib2.0-0 libsm6 libxext6 libxrender-dev
```

二、安装 CnOCR

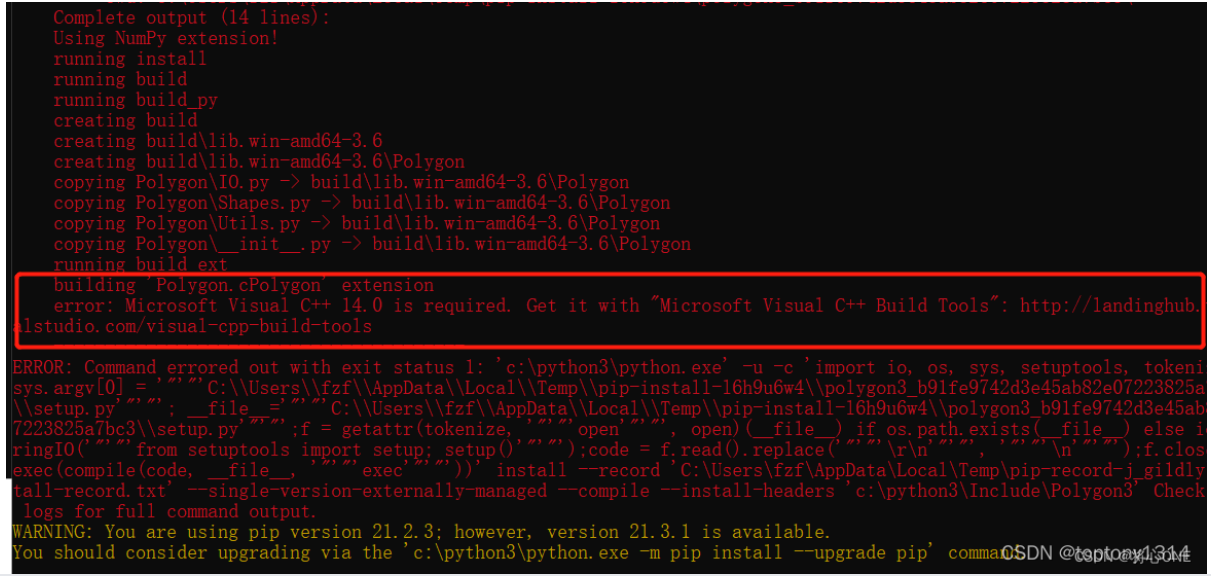
```
$ pip install cnocr
```

从 0 开始安装 CnOCR

Windows 环境

常见问题一：Polygon 编译错误 [1]

- 显示：`Microsoft Visual C++ 14.0 is required`



1. 关于安装cnstd报错的解决方案_将心ONE的博客 ↩

从 0 开始安装 CnOCR

Windows 环境

常见问题二：OpenCV 安装问题

- OpenCV 的 Python SDK：`pip install opencv-python`
- OpenCV 不能只安装它的Python SDK
- 百度/Google 搜索：`Windows 安装 opencv`
  - 参考：Windows OpenCV安装配置部署详细教程

我实在装不上怎么办?

直接使用在线demo看效果

- 在线demo：https://huggingface.co/spaces/breezedeus/cnocr

安装 `CnOCR < 2.2` 版本

- `CnOCR < 2.2` 版本不依赖 OpenCV，容易安装
- 局限是`CnOCR < 2.2`不带文字检测模型，只能识别简单的截图图片

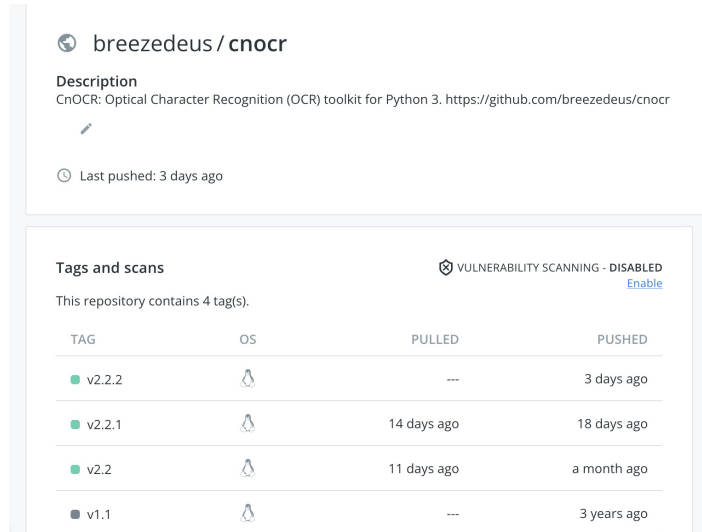
Yes

当然，在媒介越来越多的情形下，意味着传播方式的变化。过去主流的是大众传播，现在互动性和定制性带来了新的挑战——如何让品牌与消费者更加互动。

No

使用已构建好的 Docker 镜像

- 拉取镜像
  - `docker pull breezedeus/cnocr:v2.2.2`
- 运行镜像
  - `docker run -it -p 8501:8501 breezedeus/cnocr:v2.2.2 bash`
- 调用HTTP服务
  - 如待识别图片路径为：`examples/huochepiao.jpeg`
  - `$ curl -F image=@examples/huochepiao.jpeg http://0.0.0.0:8501/ocr`



使用 CSDN 云主机

- **CnOCR** 与 **CSDN开发云** 合作，云主机自带 CnOCR，一键运行
  - https://dev.csdn.net/page/ocr

使用问题

命令行报错

调用`cnocr predict`命令行时报错

```
(PointCloud) dell@dell-Super-Server:~$ cnocr predict -h
Traceback (most recent call last):
  File "/data/anaconda3/envs/PointCloud/bin/cnocr", line 5, in <module>
    from cnocr.cli import cli
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/cnocr/cli.py", line 47, in <module>
    from cnocr.dataset import OcrDataModule
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/cnocr/dataset.py", line 23, in <module>
    import pytorch_lightning as pt
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/pytorch_lightning/__init__.py", line 30, in <module>
    from pytorch_lightning.callbacks import Callback  # noqa: E402
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/pytorch_lightning/callbacks/__init__.py", line 26, in <module>
    from pytorch_lightning.callbacks.pruning import ModelPruning
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/pytorch_lightning/callbacks/pruning.py", line 31, in <module>
    from pytorch_lightning.core.lightning import LightningModule
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/pytorch_lightning/core/__init__.py", line 16, in <module>
    from pytorch_lightning.core.lightning import LightningModule
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/pytorch_lightning/core/lightning.py", line 41, in <module>
    from pytorch_lightning.loggers import LightningLoggerBase, LoggerCollection
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/pytorch_lightning/loggers/__init__.py", line 18, in <module>
    from pytorch_lightning.loggers.tensorboard import TensorBoardLogger
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/pytorch_lightning/loggers/tensorboard.py", line 26, in <module>
    from torch.utils.tensorboard import SummaryWriter
  File "/data/anaconda3/envs/PointCloud/lib/python3.9/site-packages/torch/utils/tensorboard/__init__.py", line 4, in <module>
    LooseVersion = distutils.version.LooseVersion
AttributeError: module 'distutils' has no attribute 'version'
```

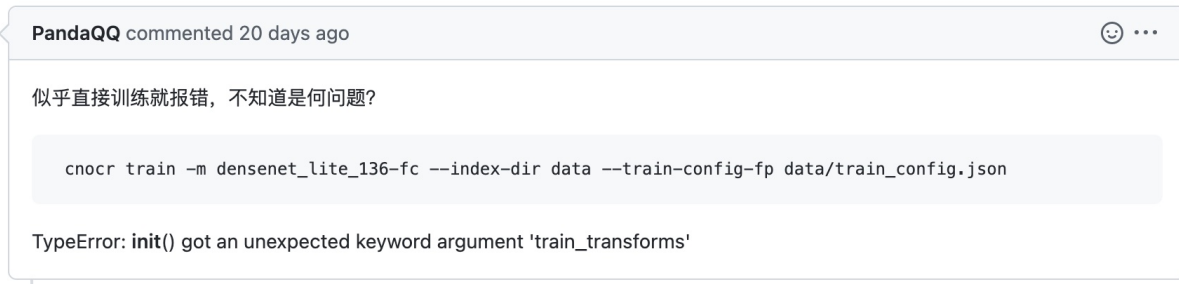
原因是`distutils`版本过高，降低其版本即可：

```
$ pip install setuptools==59.5.0
```

使用问题

命令行报错

调用 `cnocr train` 命令训练报错



PandaQQ commented 20 days ago

似乎直接训练就报错，不知道是何问题?

```
cnocr train -m densenet_lite_136-fc --index-dir data --train-config-fp data/train_config.json
```

TypeError: **init**() got an unexpected keyword argument 'train_transforms'

这是 `pytorch_lightning` 版本的兼容性问题，使用 1.6.3 版本没问题：

```
$ pip install pytorch_lightning==1.6.3
```

- 此问题在 `cnocr==2.2.2` 中已修复

More Question?

CnOCR 官方文档

- https://cnocr.readthedocs.io

CnOCR 代码库

- Github, Gitee, GitCode

知识星球 CnOCR/CnSTD/P2T私享群

- 私有资料分享、更详细的训练教程等

微信交流群

- 扫码加小助手为好友，备注 `ocr`

Thanks

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