

# CnOCR 的安装FAQ

“要站上巨人的肩膀，首先得准备好梯子”

CnOCR  
Breezedeus, 2022.09 →



# Python 是一门站在巨人肩膀上的语言

巨人们: `import \*`

```
1 import os
2 import re
3 import sys
4 import json
5 import torch
6 import jiwer
7 import logging
8 import librosa
9 import datasets
10 import itertools
11 import torchaudio
12 import numpy as np
13 import transformers
14 import pandas as pd
15 from torch import nn
16 import seaborn as sns
17 import torch.nn as nn
18 import soundfile as sf
19 import arabic_reshaper
20 from pyarabic import araby
21 from packaging import version
22 from pydub import AudioSegment
23 import matplotlib.pyplot as plt
24 from pydub.utils import mediainfo
25 from torch.nn import functional as F
26 from contextlib import contextmanager
27 from bidi.algorithm import get_display
28 from lang_trans.arabic import buckwalter
29 from dataclasses import dataclass, field
30 from datasets import load_dataset, Dataset
31 from sklearn.metrics import accuracy_score
32 from argparse import ArgumentParser
33 from typing import Any, Dict, List, Optional, Union
34 from transformers import HfArgumentParser, TrainingArguments
35 from sklearn.metrics import classification_report, confusion_matrix
36 from transformers.trainer_utils import get_last_checkpoint, is_main_process
37 from transformers import is_apex_available, set_seed, Trainer, Wav2Vec2FeatureExtractor
38 from transformers import Wav2Vec2ForCTC, Wav2Vec2Processor, Wav2Vec2Model, Wav2Vec2PreTrainedModel
39 % matplotlib inline
```



@breezedeus

# 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`

```
Complete output (14 lines):
Using NumPy extension!
running install
running build
running build_py
creating build
creating build\lib.win-amd64-3.6
creating build\lib.win-amd64-3.6\Polygon
copying Polygon\IO.py -> build\lib.win-amd64-3.6\Polygon
copying Polygon\Shapes.py -> build\lib.win-amd64-3.6\Polygon
copying Polygon\Utils.py -> build\lib.win-amd64-3.6\Polygon
copying Polygon\_init_.py -> build\lib.win-amd64-3.6\Polygon
running build_ext
building "Polygon.cPolygon" extension
error: Microsoft Visual C++ 14.0 is required. Get it with "Microsoft Visual C++ Build Tools": http://landinghub
lstudio.com/visual-cpp-build-tools

ERROR: Command errored out with exit status 1: 'c:\python3\python.exe' -u -c 'import io, os, sys, setuptools, tokenize
sys.argv[0] = """C:\\Users\\fzf\\AppData\\Local\\Temp\\\\pip-install-16h9u6w4\\polygon3_b91fe9742d3e45ab82e07223825a
\\setup.py"""; __file__ = """C:\\Users\\fzf\\AppData\\Local\\Temp\\\\pip-install-16h9u6w4\\polygon3_b91fe9742d3e45ab
7223825a\\bc3\\\\setup.py""'; f = getattr(tokenize, __open__, open)(__file__); if os.path.exists(__file__) else i
ringIO('' from setuptools import setup; setup('' )); code = f.read().replace('\\r\\n', '\\n'); f.close()
exec(compile(code, __file__, 'exec'))' install --record 'C:\\Users\\fzf\\AppData\\Local\\Temp\\\\pip-record-j.g1ldly
tall-record.txt' --single-version-externally-managed --compile --install-headers 'c:\\python3\\Include\\Polygon3' Check
logs for full command output.

WARNING: You are using pip version 21.2.3; however, version 21.3.1 is available.
You should consider upgrading via the 'c:\\python3\\python.exe -m pip install --upgrade pip' command.
```

# 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安裝配置部署详细教程](#)

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>

模型设置

选择检测模型  
('ch\_PP-OCRv3\_det', 'onnx')

选择识别模型  
('densenet\_lite\_136-fc', 'onnx')

检测参数

是否检测带角度文本框

是否使用角度预测模型校正文本框

resize后图片(长边)大小  
768

得分阈值(低于阈值的结果会被过滤掉)  
0.30

框大小阈值(更小的文本框会被过滤掉)  
10

详细说明参见: [CnOCR 文档](#); 欢迎加入 [交流群](#); 作者: [breezedeus](#)。

### 选择待检测图片

Drag and drop file here  
Limit 200MB per file • PNG, JPG, JPEG, WEBP

Browse files

huochebiao.jpeg 441.3KB

# 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`

The screenshot shows a Docker repository page for the repository `breezedeus/cnocr`. The repository description is "CnOCR: Optical Character Recognition (OCR) toolkit for Python 3. <https://github.com/breezedeus/cnocr>". The last push was 3 days ago. The page displays four tags: v2.2.2, v2.2.1, v2.2, and v1.1. Vulnerability scanning is disabled.

TAG	OS	PULLED	PUSHED
v2.2.2	🐧	---	3 days ago
v2.2.1	🐧	14 days ago	18 days ago
v2.2	🐧	11 days ago	a month ago
v1.1	🐧	---	3 years ago

# 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>

The screenshot shows the CSDN Development Cloud homepage. At the top, there's a navigation bar with links for '开发云' (Development Cloud), '产品 new' (Products new), '云IDE' (Cloud IDE), '解决方案' (Solution), '最新活动' (Latest Activities), '分销大使' (Distribution Ambassador), '备案' (Record Filing), '工单' (Work Order), and '文档' (Documentation). The main header features the text 'CnOCR 一键运行' (CnOCR One-Click Run) with a subtitle explaining it's a Python 3 text recognition tool. Below this, there's a large button labeled '10秒启动' (Start in 10 seconds). The page then transitions to a section titled '10秒启动 马上使用' (Start in 10 seconds, ready to use) which lists three membership plans:

- CnOCR 一键运行 5天会员**  
代码和运行环境以及各种依赖完备的环境，一键启动，马上使用。  
规格：不限次数  
时长：5天 **5折**  
约**59.4元/月**  
9.9元/5天 26元 **5折**  
[立即购买](#)
- CnOCR 一键运行 1个月会员**  
代码和运行环境以及各种依赖完备的环境，一键启动，马上使用。  
规格：不限次数  
时长：1月 **4折**  
约**39元/月**  
39元/1个月 99元 **4折**  
[立即购买](#)
- CnOCR 一键运行 1年会员**  
代码和运行环境以及各种依赖完备的环境，一键启动，马上使用。  
规格：不限次数  
时长：1年 **5折**  
约**16.58元/月**  
199元/1年 399元 **5折**  
[立即购买](#)

# 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>

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



CnOCR 代码库

- [Github](#), [Gitee](#), [GitCode](#)

微信交流群

- 扫码加小助手为好友，备注 `ocr`



扫一扫上面的二维码图案，加我为朋友

# Thanks

learn more



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[Github](#) · [Gitee](#) · [GitCode](#)