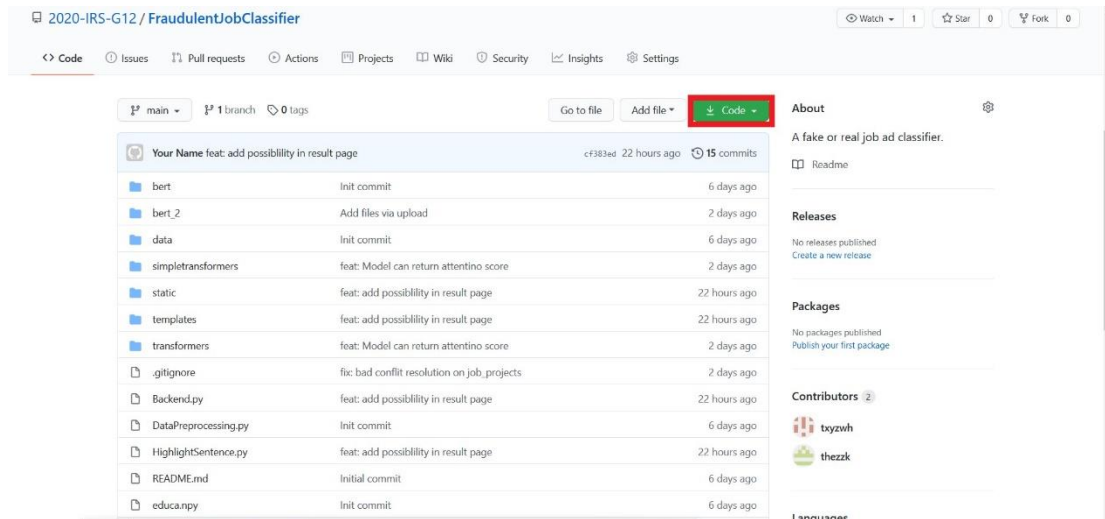


User Guide

Installation

Clone our project from <https://github.com/2020-IRS-G12/FraudulentJobClassifier>



Install python 3.7.7

<https://www.ics.uci.edu/~pattis/common/handouts/pythoneclipsejava/python.html>

Install package:

pip install matplotlib

pip install tensorflow==2.2.0

pip install transformers

pip install simpletransformers

pip install flask

pip install seaborn

pip install nltk

pip install imblearn

pip install spacy

python -m spacy download en_core_web_sm

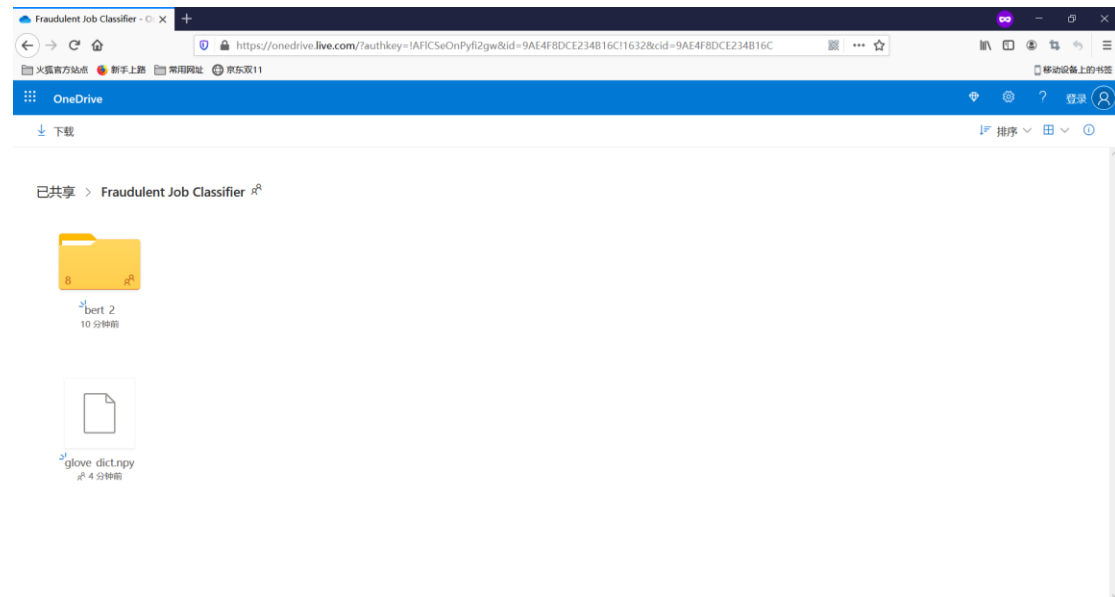
pip install torch==1.6.0+cpu

torchvision==0.7.0+cpu

-f

https://download.pytorch.org/whl/torch_stable.html

open this link: <https://1drv.ms/u/s!AmyxNOLc-OSajGBZQknjpz8n4toM?e=gzxINy>
Download “bert_2” and “glove_dict.npy”



Copy “bert_2” and “glove_dict.npy” to your **FraudulentJobClassifier** directory.

名称	修改日期	类型	大小
__pycache__	2020/10/23 20:25	文件夹	
bert	2020/10/23 20:21	文件夹	
bert_2	2020/10/23 20:22	文件夹	
data	2020/10/23 20:21	文件夹	
simpletransformers	2020/10/23 20:29	文件夹	
static	2020/10/23 20:21	文件夹	
templates	2020/10/23 20:21	文件夹	
transformers	2020/10/23 20:24	文件夹	
wandb	2020/10/23 20:24	文件夹	
.gitignore	2020/10/23 5:05	文本文档	2 KB
Backend	2020/10/23 5:05	PY 文件	4 KB
DataPreprocessing	2020/10/23 5:05	PY 文件	1 KB
educa.npy	2020/10/23 5:05	NPY 文件	1 KB
experi.npy	2020/10/23 5:05	NPY 文件	1 KB
function.npy	2020/10/23 5:05	NPY 文件	2 KB
glove_dict.npy	2020/10/12 16:15	NPY 文件	2,736,420...
HighlightSentence	2020/10/23 5:05	PY 文件	3 KB
industry.npy	2020/10/23 5:05	NPY 文件	8 KB
job_projects	2020/10/23 5:05	PY 文件	15 KB
pickle_lr_model.pkl	2020/10/23 5:05	PKL 文件	4 KB
README.md	2020/10/23 5:05	MD 文件	1 KB
test	2020/10/23 5:05	PY 文件	1 KB

Run project

Execute Backend.py

名称	修改日期	类型	大小
__pycache__	2020/10/23 20:25	文件夹	
bert	2020/10/23 20:21	文件夹	
bert_2	2020/10/23 20:22	文件夹	
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README.md	2020/10/23 5:05	MD 文件	1 KB
test	2020/10/23 5:05	PY 文件	1 KB

```

4  from flask.templating import render_template
5  from werkzeug.utils import html, redirect
6  from sklearn.preprocessing import LabelEncoder
7  from sklearn.preprocessing import StandardScaler
8  from job_projects import lr,be,ga_job,fliter
9  import sys
10
11  import HighlightSentence as hs
12
13  import pandas as pd
14  import numpy as np
15  import nltk
16
17  #nltk.download('punkt')
18  #nltk.download('stopwords')
19
20
21  app = Flask(__name__)
22
23  data = pd.read_csv('data/data_lr.csv')
24
25  class TextInfo:
26      word_list = []
27      company_profile = ''
28      requirements = ''
29      benefits = ''

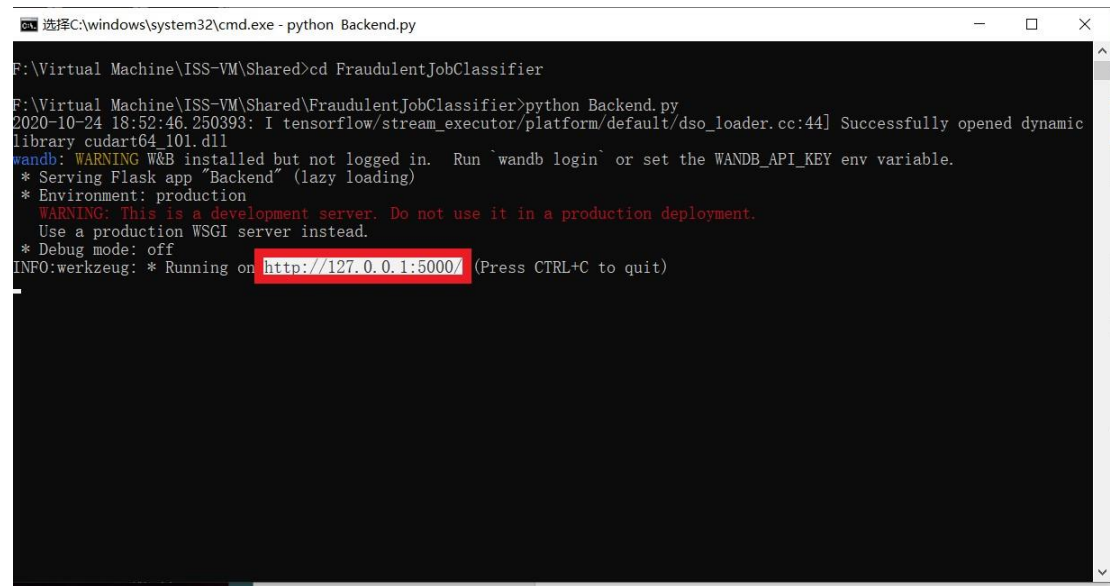
```

```

4  from flask.templating import render_template
5  from werkzeug.utils import html, redirect
6  from sklearn.preprocessing import LabelEncoder
7  from sklearn.preprocessing import StandardScaler
8  from job_projects import lr,be,ga_job,fliter
9  import sys
10
11  import HighlightSentence as hs
12
13  import pandas as pd
14  import numpy as np
15  import nltk
16
17  nltk.download('punkt')
18  nltk.download('stopwords')
19
20
21  app = Flask(__name__)
22
23  data = pd.read_csv('data/data_lr.csv')
24
25  class TextInfo:
26      word_list = []
27      company_profile = ''
28      requirements = ''
29      benefits = ''

```

Lunch CMD and enter the **FraudulentJobClassifier** directory, then execute the command: python Backend.py



```
选择C:\windows\system32\cmd.exe - python Backend.py
F:\Virtual Machine\ISS-VM\Shared>cd FraudulentJobClassifier
F:\Virtual Machine\ISS-VM\Shared\FraudulentJobClassifier>python Backend.py
2020-10-24 18:52:46.250393: I tensorflow/stream_executor/platform/default/dso_loader.cc:44] Successfully opened dynamic
library cudart64_101.dll
wandb: WARNING W&B installed but not logged in. Run `wandb login` or set the WANDB_API_KEY env variable.
* Serving Flask app "Backend" (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
INFO:werkzeug: * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

Copy this link to Chrome or Firefox and you can enjoy our system.

After first run, you can choose to comment these two lines again:

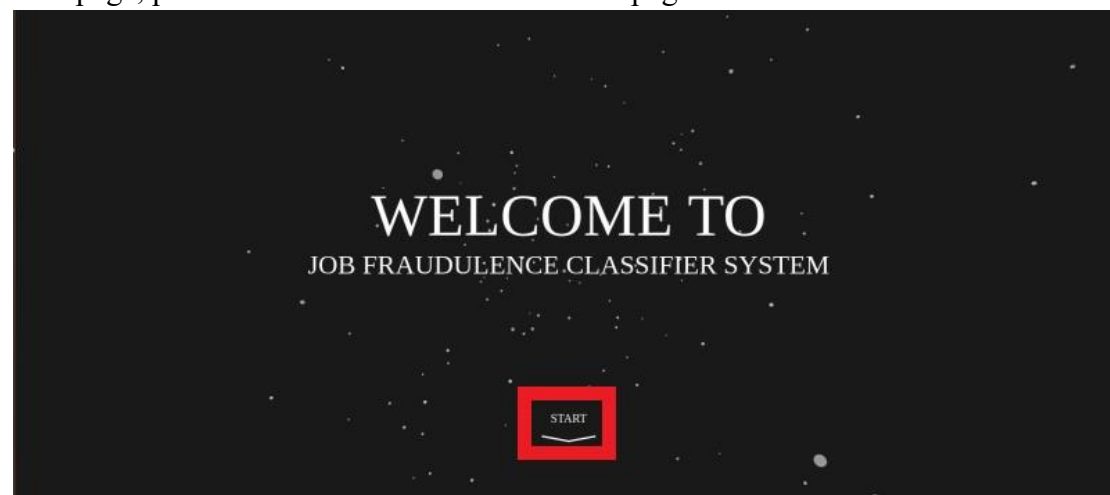
- **nlTK.download('punkt')**
- **nlTK.download('stopwords')**

Supported Browsers

Firefox, Google Chrome

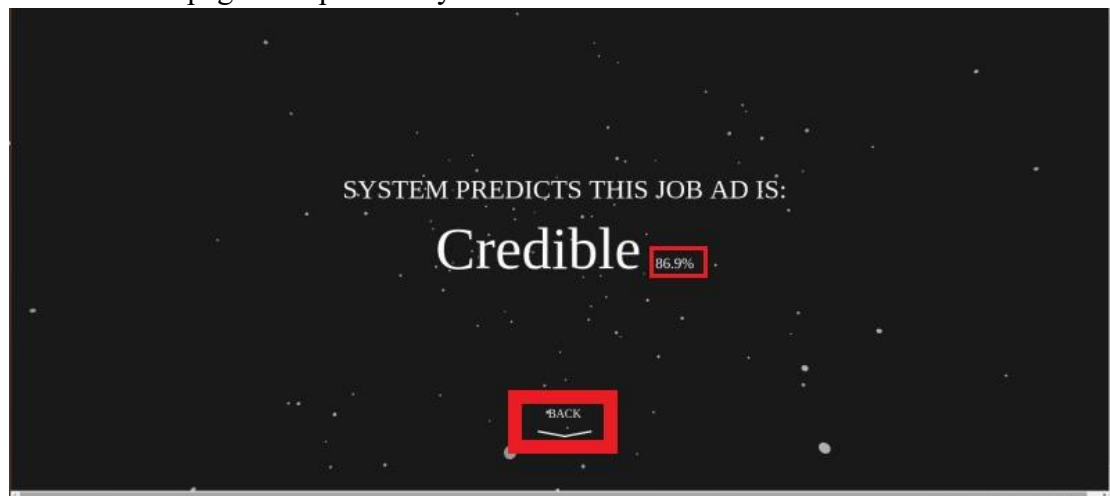
Use the system

After you paste the URL into browser's address bar then press "Enter", you can see the start page, please click start button to enter next page.

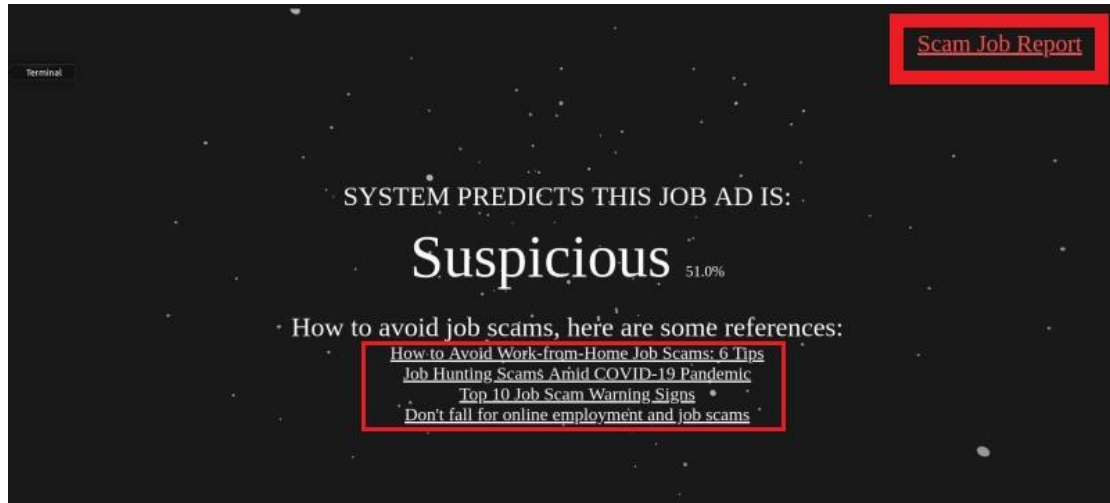


The next page is the form page, you can fill in the job information that you find on the Internet or you also can click the buttons in the red block to use example cases to test our system. Finish filling and click the submit button, then you can go to next page

If our system judges the job you provide is a true job, you can click the back button to return to start page. The possibility next to the result text is the confidence of the result.



If our system judges the job is a fake job, you can go to see the error report highlighting its suspicious parts to find why our system makes such prediction and you can also click the links below to learn some tips to avoid job scams.



Click the back button and you can go to the start page.