Python 爬虫踩坑记录

计 97 胡沐彦

2020 年 9 月 10 日

爬取思路

- 运行环境：Ubuntu 20.04，爬取豆瓣电影信息与演员信息

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- 电影与演员的爬取分开进行

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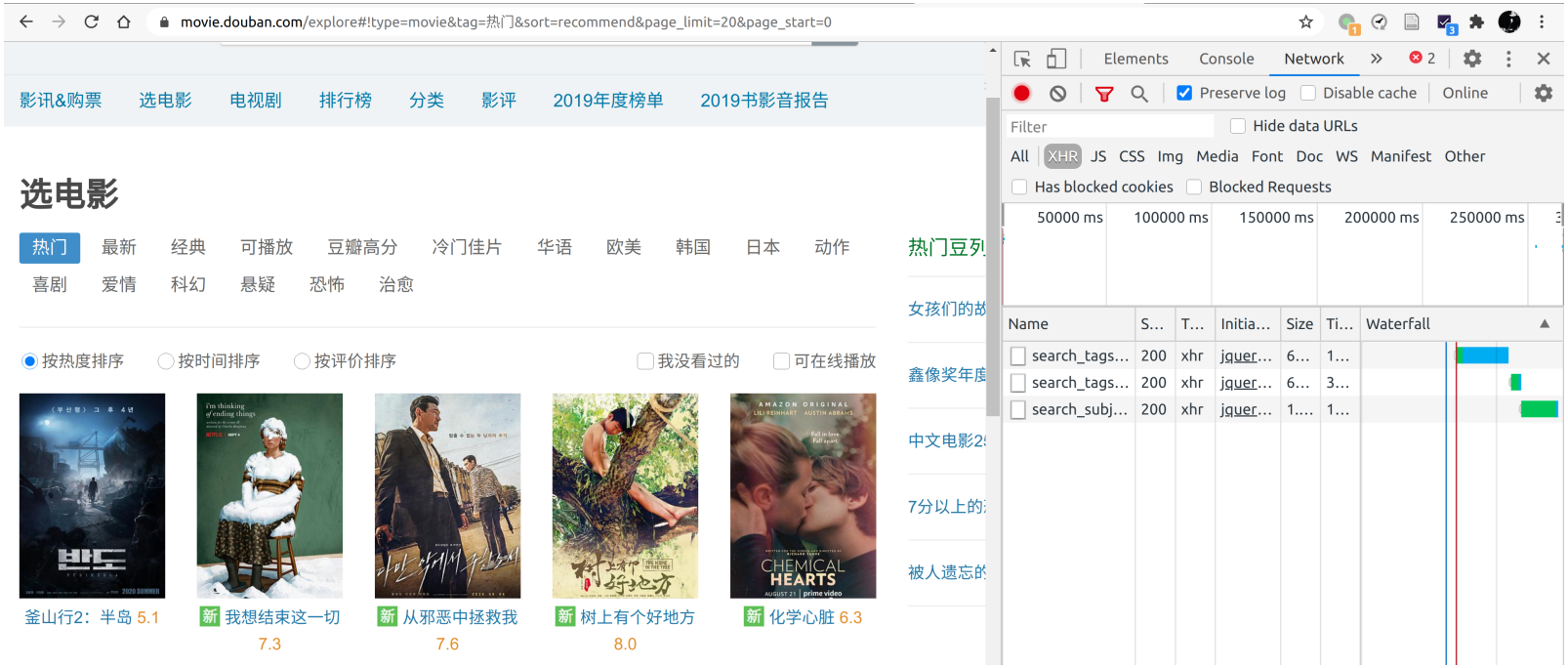
- 电影与演员的爬取分开进行
- 用 `urllib` 库进行网页页面的获取，然后利用正则表达式库 `re` 提取页面上的信息，最后用 `json` 库将信息以 json 格式保存

网页页面获取



无法直接从该页面源码中获取电影链接，用 chrome 浏览器自带的 devtools 中记录 network activity 功能抓取到需要的链接

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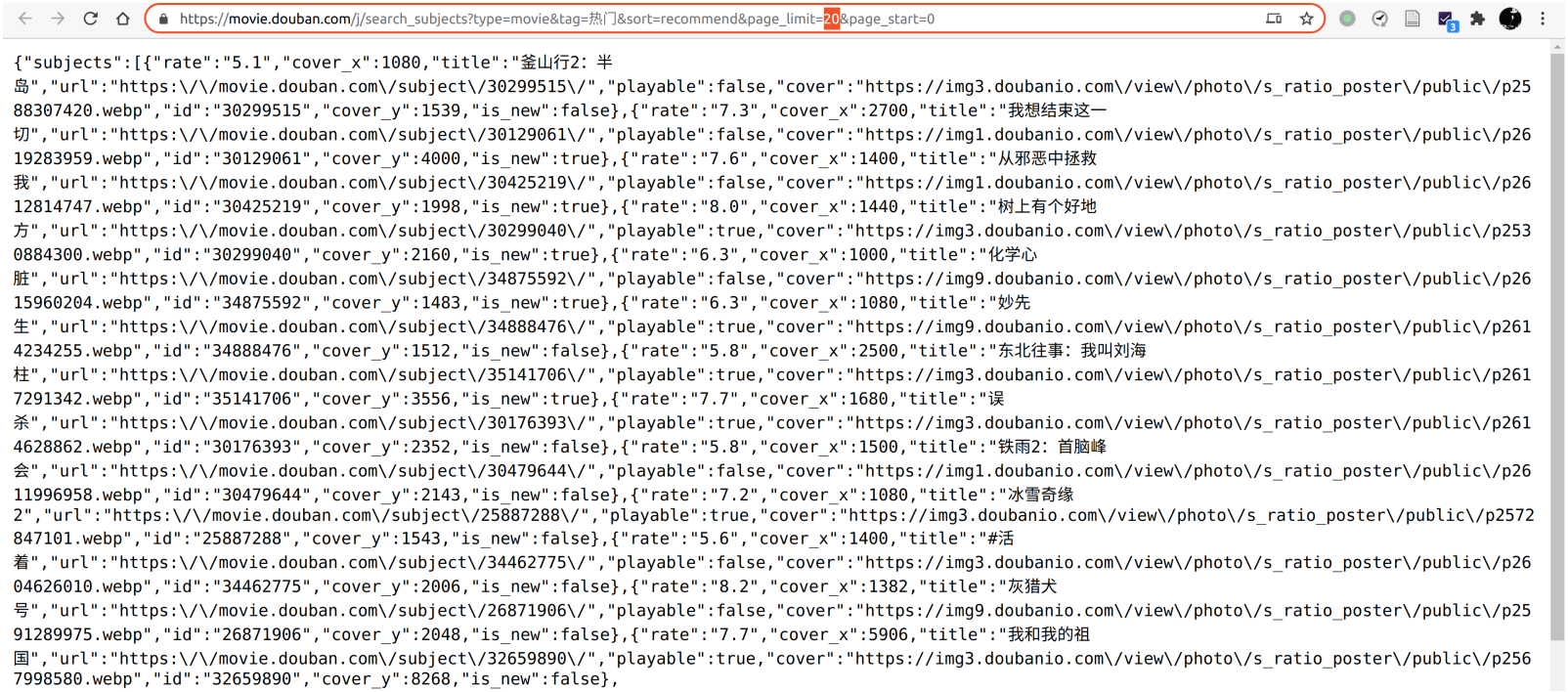

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通过观察，调整链接中的 `page_limit` 获取所有电影列表

网页页面获取

```
req = Request(url)
req.add_header("User-Agent", Header)
sourceCode = urlopen(req).read().decode("utf-8")
```

- Header 为一个消息头字符串：Mozilla/5.0 (Windows NT 6.1; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/76.0.3809.100 Safari/537.36

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- 加入后可降低被反爬虫的概率
  - 实测在随机 sleep $2 \sim 3$s 的爬取速度下不会被封

基本信息提取

根据观察 HTML 代码设计尽可能准确的正则表达式

```
433        <span class="pl">片长:</span> <span property="v:runtime" content="115">115分钟</span><br/>
```

- 如电影长度为 `int(re.search(r'<span property="v:runtime" content="([0-9]+)">', html).group(1))`

用 `os.system` 运行 `wget` 命令下载图片，以电影/演员的豆瓣 ID 作为保存文件名

豆瓣网页的一些小 trick

- 豆瓣电影有专门的影评网页（电影链接后加`/reviews`），爬取影评更方便

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- 有些内容可能需要点击“显示全部”查看完整内容，在 HTML 源码中一般显示在 `<span class="all hidden">` 之后

Python 的一些小 trick

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- 有的电影/演员因为信息不全可能出现匹配失败，可以用 Python 的 `try-except` 机制防止程序终止

实际运行效果

用一天时间完成全部爬取工作

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很少被封的原因？Ubuntu？wget？

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一种成本较低的防 ban 方案：被 ban 之后路由器重播获得不同的 IP

谢谢大家！