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Scrapy & AutoExtract API integration

SCRAPY & AUTOEXTRACT API INTEGRATION

📅 October 15, 2019 👤 Attila Tóth 💬 0 Comments

We've just released a **new open-source Scrapy middleware** which makes it easy to integrate AutoExtract into your existing Scrapy spider. If you haven't heard about **AutoExtract** yet, it's an AI-based web scraping tool which automatically extracts data from web pages without the need to write any code. [Learn more about AutoExtract here.](#)

Installation

This project uses **Python 3.6+** and **pip**. A **virtual environment** is strongly encouraged.

```
$ pip install git+https://github.com/scrapinghub/scrapy-autoextract
```

Configuration

Enable middleware

```
DOWNLOADER_MIDDLEWARES = {  
    'scrapy_autoextract.AutoExtractMiddleware': 543,  
}
```

This middleware should be the last one to be executed so make sure to give it the highest value.

AutoExtract settings

Mandatory

These settings must be defined in order for AutoExtract to work.

- **AUTOEXTRACT_USER**: your AutoExtract API key
- **AUTOEXTRACT_PAGE_TYPE**: the kind of data to be extracted (current options: "product" or "article")

Optional

- **AUTOEXTRACT_URL**: AutoExtract service url (default: `autoextract.scrapinghub.com`)
- **AUTOEXTRACT_TIMEOUT**: response timeout from AutoExtract (default: 660 seconds)

Spider

AutoExtract requests are opt-in and they must be enabled for each request, by adding:

```
meta['autoextract'] = {'enabled': True}
```

If the request was sent to AutoExtract, inside your Scrapy spider you can access the AutoExtract result through the meta attribute:

```
def parse(self, response):  
    yield response.meta['autoextract']
```

Example

In the Scrapy settings file:

```
DOWNLOADER_MIDDLEWARES = {
    'scrapy_autoextract.AutoExtractMiddleware': 543,
}
```

```
# Disable AutoThrottle middleware
AUTHTHROTTLE_ENABLED = False
```

```
AUTOEXTRACT_USER = 'my_autoextract_apikey'
AUTOEXTRACT_PAGE_TYPE = 'article'
```

In the spider:

```
class ExampleSpider(Spider):
    name = 'example'
    start_urls = ['example.com']

    def start_requests(self):
        yield scrapy.Request(url, meta={'autoextract': {'enabled': True}}, self.)

    def parse(self, response):
        yield response.meta['autoextract']
```

Example output:

```
[{
    "query":{
        "domain":"example.com",
        "userQuery":{
            "url":"https://www.example.com/news/2019/oct/15/lorem-dolor-sit",
            "pageType":"article"
        },
        "id":"1570771884892-800e44fc7cf49259"
    },
    "article":{
        "articleBody":"Lorem ipsum dolor sit amet, consectetur adipiscing elit,
        "description":"Duis aute irure dolor in reprehenderit in voluptate velit
        "probability":0.9717171744215637,
        "inLanguage":"en",
        "headline":"'Lorem Ipsum Dolor Sit Amet",
        "author":"Attila Toth",
        "articleBodyHtml":"<article>\n\n<p>Lorem ipsum...",
        "images":["https://i.example.com/img/media/12a71d2200e99f9ffff125972b88f4"]
    }
}]
```

```
"mainImage": "https://i.example.com/img/media/12a71d2200e99f9fff125972b88  
}]
```

Limitations

- The incoming spider request is rendered by AutoExtract, not just downloaded by Scrapy, which can change the result - the IP is different, headers are different, etc.
- Only GET requests are supported
- Custom headers and cookies are not supported (i.e. Scrapy features to set them don't work)
- Proxies are not supported (they would work incorrectly, sitting between Scrapy and AutoExtract, instead of AutoExtract and website)
- AutoThrottle extension can work incorrectly for AutoExtract requests, because AutoExtract timing can be much larger than the time required to download a page, so it's best to use `AUTOTHROTTLE_ENABLED=False` in the settings.
- Redirects are handled by AutoExtract, not by Scrapy, so these kinds of middlewares might have no effect
- Retries should be disabled, because AutoExtract handles them internally (use `RETRY_ENABLED=False` in the settings) There is an exception, if there are too many requests sent in a short amount of time and AutoExtract returns HTTP code 429. For that case it's best to use `RETRY_HTTP_CODES=[429]`.

Check out the middleware on Github or learn more about AutoExtract!

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