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undetected-chromedriver 3.5.5

✓ Latest version

```
pip install undetected-chromedriver
```

Released: Feb 18, 2024

('Selenium.webdriver.Chrome replacement with compatibility for Brave, and other Chromium based browsers.', 'Not triggered by CloudFlare/Imperva/hCaptcha and such.', 'NOTE: results may vary due to many factors. No guarantees are given, except for ongoing efforts in understanding detection algorithms.')

Navigation

[Project description](#)[Release history](#)[Download files](#)

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Meta

- License: GNU General Public License v3 (GPLv3) (GPL-3.0)
- Author: [UltrafunkAmsterdam](#)

Classifiers

License

- [OSI Approved :: GNU General Public License v3 \(GPLv3\)](#)

Programming Language

- [Python :: 3](#)
- [Python :: 3.7](#)
- [Python :: 3.8](#)
- [Python :: 3.9](#)
- [Python :: 3.10](#)
- [Python :: 3.11](#)



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Project description

undetected_chromedriver

<https://github.com/ultrafunkamsterdam/undetected-chromedriver>

Optimized Selenium Chromedriver patch which does not trigger anti-bot services like Distill Network / Imperva / DataDome / Botprotect.io Automatically downloads the driver binary and patches it.

- Tested until current chrome beta versions
- Works also on Brave Browser and many other Chromium based browsers, but you need to know what you're doing and needs some tweaking.
- Python 3.6+***

Installation

```
pip install undetected-chromedriver
```

or, if you're feeling adventurous, install directly via github

```
pip install git+https://www.github.com/ultrafunkamsterdam/undetected-chromedriver@master#
```

Message for all

I will be putting limits on the issue tracker. It has been abused too long. any good news?

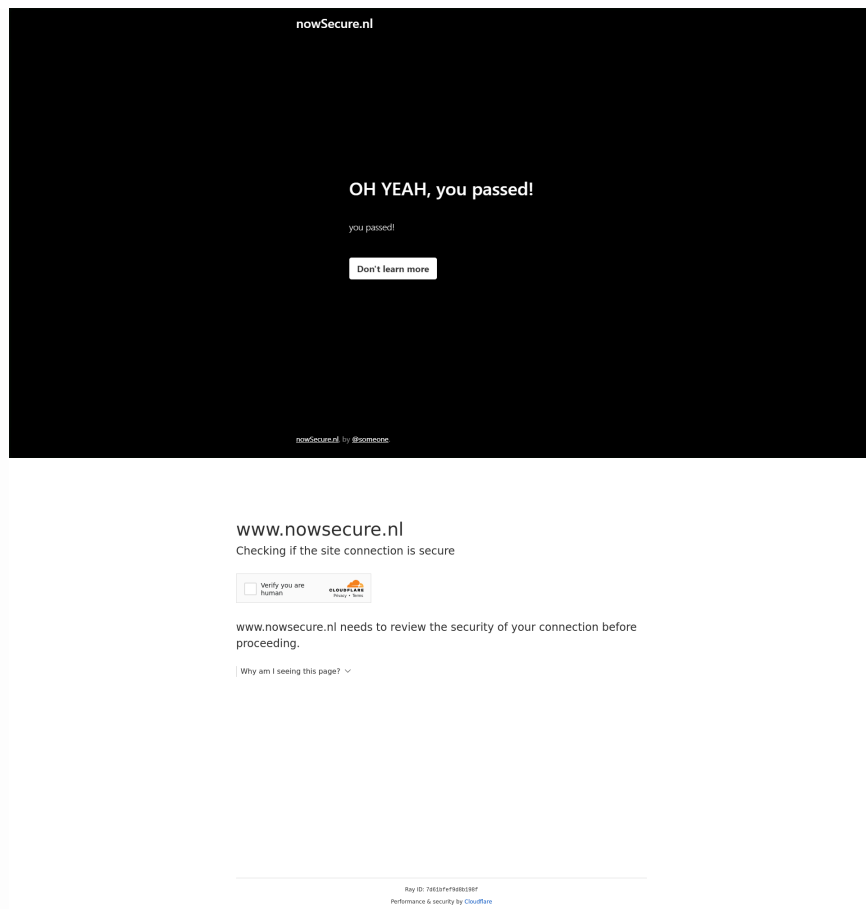
Yes, i've opened [Undetected-Discussions](#) which i think will help us better in the long run.

What this is not

THIS PACKAGE DOES NOT, and i repeat DOES NOT hide your IP address, so when running from a datacenter (even smaller ones), chances are large you will not pass! Also, if your ip reputation at home is low, you won't pass!

Running following code from home, and from a datacenter.

```
import undetected_chromedriver as uc
driver = uc.Chrome(headless=True, use_subprocess=False)
driver.get('https://nowsecure.nl')
driver.save_screenshot('nowsecure.png')
```



3.5.0

- selenium 4.10 caused some issues. 3.5.0 is compatible and has selenium 4.9 or above pinned. I can't support <4.9 any longer.
- Removed some kwargs from constructor: service_args, service_creationflags, service_log_path.
- added find_elements_recursive generator function. which is more of a convenience function as lots of websites seem to serve different content from different frames, making it hard to use find_elements

3.4.5

- What a week. Had the recent advancements in Automation-Detection algorithms pwned (so i thought) with 3.4.0, but apparently, for some OS-es this caused an error when interacting with elements. Had to revert back using a different method, fix bugs, and now eventually was still able to stick to the initial idea (+ fixing bugs)
- Update to chrome 110 caused another surprise, this time for HEADLESS users.
- although headless is unsupported officially, i did patch it!
- happy to announce IT IS NOW UNDETECTED AS WELL (but still unsupported ;))
- special thanks here to [@mdmintz](#) and [@abdulezain6](#)
- also special thanks to [@sebdelsol](#) for his help throughout the issues section completely voluntarily, you must be crazy :)

3.4.0

Big update! be careful as it -potentially- could break your code.

- rewritten the anti-detection mechanism instead of removing and renaming variables, we just keep them, but prevent them from being injected in the first place. This will keep us safe from detection at least for the near future.
- rewritten the file naming, to prevent ending up with 1000 of {randomstring}_chromedriver.exe 's instead it is just called undetected_chromedriver.exe
- cleanup removed compat,v2 files and tests folder

3.2.0

- added an example containing some typical webdriver code, answers to commonly asked questions, pitfalls + showcasing some tricks to ditch the need for multithreading.

>>> [example code here](#) <<<

- added `WebElement.click_safe()` method, which you can try in case you get detected after clicking a link. This is not guaranteed to work.
- added `WebElement.children(self, tag=None, recursive=False)` to easily get/find child nodes. example:

```
body = driver.find_element('tag name', 'body')

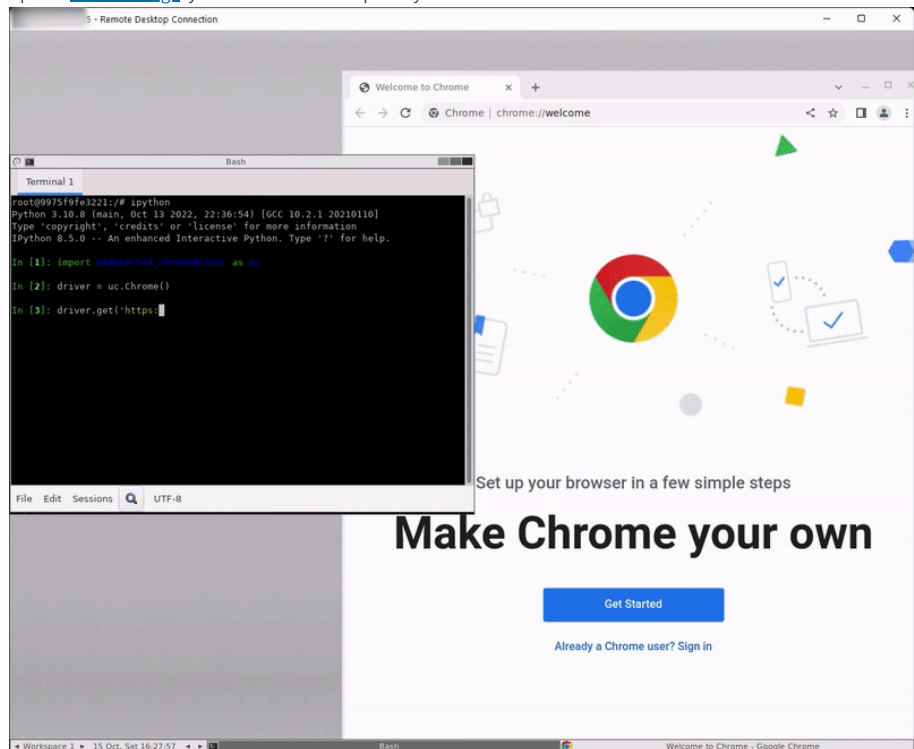
# get the 6th child (any tag) of body, and grab all img's within (recursive).
images = body.children()[6].children('img', True)
srcs = list(map(lambda _:_.attrs.get('src'), images))
```

- added `example.py` where i can point people at when asking silly questions (no, its actually quite cool, everyone should see it)
- added support for lambda platform
- added support for x86_32
- added support for systems reporting as linux2
- some refactoring

3.1.6

still passing strong

- use `subprocess` now defaults to `True`. too many people don't understand multiprocessing and `name == 'main'`, and after testing, it seems not to make a difference anymore in chrome 104+
- added `no_sandbox`, which defaults to `True`, and this without the annoying "you are using unsecure command line ..." bar.
- update [Docker image](#). you can now vnc or rdp into your container to see the actual browser window



- of course, "regular" mode works as well

```
root@vps1:/uc_docker# docker run -it --rm ultrafunk/undetected-chromedriver
```

3.1.0

this version `might` break your code, test before update!

- added new anti-detection logic!
- v2 has become the main module, so no need for references to v2 anymore. this mean you can now simply use:

```
import undetected_chromedriver as uc
driver = uc.Chrome()
driver.get('https://nowsecure.nl')
```

for backwards compatibility, v2 is not removed, but aliased to the main module.

- Fixed "welcome screen" nagging on non-windows OS-es. For those nagfetishists who ♥ welcome screens and feeding google with even more data, use `Chrome(suppress_welcome=False)`.
- replaced `executable_path` in constructor in favor of `browser_executable_path` which should not be used unless you are the edge case (yep, you are) who can't add your custom chrome installation folder to your PATH environment variable, or have an army of different browsers/versions and automatic lookup returns the wrong browser
- "v1" (?) moved to `_compat` for now.
- fixed dependency versions
- ChromeOptions custom handling removed, so it is compatible with `webdriver.chromium.options.ChromiumOptions`.
- removed `Chrome.get()` fu and restored back to "almost" original:
 - no `with` statements needed anymore, although it will still work for the sake of backward-compatibility.
 - no sleeps, stop-start-sessions, delays, or async cdp black magic!
 - this will solve a lot of other "issues" as well.
- test success to date: 100%
- just to mention it another time, since some people have hard time reading: **headless is still WIP. Raising issues is needless**

3.0.4 changes

- change process creation behavior to be fully detached
- changed `.get(url)` method to always use the contextmanager
- changed `.get(url)` method to use cdp under the hood.

... the `with` statement is not necessary anymore ..

- todo: work towards asynccification and selenium 4

words of wisdom:

Whenever you encounter the daunted

```
from session not created: This version of ChromeDriver only supports Chrome version 96 # or  
what ever version
```

the solution is simple:

```
import undetected_chromedriver as uc  
driver = uc.Chrome( version_main = 95 )
```

July 2021: Currently busy implementing selenium 4 for undetected-chromedriver

newsflash: <https://github.com/ultrafunkamsterdam/undetected-chromedriver/pull/255>

Usage

To prevent unnecessary hair-pulling and issue-raising, please mind the [important note at the end of this document](#) .

easy

Literally, this is all you have to do. Settings are included and your browser executable is found automagically. This is also the snippet i recommend using in case you experience an issue.

```
import undetected_chromedriver as uc  
  
driver = uc.Chrome()  
driver.get( 'https://nowsecure.nl' ) # my own test test site with max anti-bot protection
```

more advanced way, including setting profile folder

Literally, this is all you have to do. If a specified folder does not exist, a NEW profile is created. Data dirs which are specified like this will not be autoremoved on exit.

```
import undetected_chromedriver as uc  
  
options = uc.ChromeOptions()  
  
# setting profile  
options.user_data_dir = "c:\\temp\\profile"  
  
# use specific (older) version  
driver = uc.Chrome(  
    options = options , version_main = 94  
    ) # version_main allows to specify your chrome version instead of following chrome global  
  
driver.get( 'https://nowsecure.nl' ) # my own test test site with max anti-bot protection
```

expert mode, including Devtool/Wire events

Literally, this is all you have to do. You can now listen and subscribe to the low level devtools-protocol. I just recently found out that is also on planning for future release of the official chromedriver. However i implemented my own for now. Since i needed it myself for investigation.

```
import undetected_chromedriver as uc  
from pprint import pprint  
  
driver = uc.Chrome(enable_cdp_events=True)
```

```
def mylousyprintfunction(eventdata):
    print(pformat(eventdata))

# set the callback to Network.dataReceived to print (yeah not much original)
driver.add_cdp_listener("Network.dataReceived", mylousyprintfunction)
driver.get('https://nowsecure.nl') # known url using cloudflare's "under attack mode"

def mylousyprintfunction(message):
    print(pformat(message))

# for more inspiration checkout the link below
# https://chromedevtools.github.io/devtools-protocol/1-3/Network/

# and of course 2 lousy examples
driver.add_cdp_listener('Network.requestWillBeSent', mylousyprintfunction)
driver.add_cdp_listener('Network.dataReceived', mylousyprintfunction)

# hint: a wildcard captures all events!
# driver.add_cdp_listener('*', mylousyprintfunction)

# now all these events will be printed in my console
driver.get('https://nowsecure.nl')

{'method': 'Network.requestWillBeSent',
 'params': {'documentURL': 'https://nowsecure.nl/',
            'frameId': 'F42BAE48DD4E428EE2503CB5A7B4F700',
            'hasUserGesture': False,
            'initiator': {'type': 'other'},
            'loaderId': '449906A5C736D819123288133F2797E6',
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                                   '10.0; Win64; x64)
                                   AppleWebKit/537.36 (KHTML,
                                   'like Gecko)
                                   Chrome/90.0.4430.212
                                   Safari/537.36',
                                   'sec-ch-ua': '" Not A;Brand";v="99",
                                   '"Chromium";v="90", "Google
                                   Chrome";v="90"',
                                   'sec-ch-ua-mobile': '?0'},
                'initialPriority': 'VeryHigh',
                'method': 'GET',
                'mixedContentType': 'none',
                'referrerPolicy': 'strict-origin-when-cross-origin',
                'url': 'https://nowsecure.nl/'},
            'requestId': '449906A5C736D819123288133F2797E6',
            'timestamp': 190010.996717,
            'type': 'Document',
            'wallTime': 1621835932.112026}}

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            'headers': {'authority': 'nowsecure.nl',
                        ':method': 'GET',
                        ':path': '/',
                        ':scheme': 'https',
                        'accept': 'text/html,application/xhtml+xml,application/xml;q=0.9,image
                        'accept-encoding': 'gzip, deflate, br',
                        'accept-language': 'en-US,en;q=0.9',
                        'sec-ch-ua': '" Not A;Brand";v="99",
                        '"Chromium";v="90", "Google
                        Chrome";v="90"',
                        'sec-ch-ua-mobile': '?0',
                        'sec-fetch-dest': 'document',
                        'sec-fetch-mode': 'navigate',
                        'sec-fetch-site': 'none',
                        'sec-fetch-user': '?1',
                        'upgrade-insecure-requests': '1',
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                        'x64) AppleWebKit/537.36 (KHTML, like
                        'Gecko) Chrome/90.0.4430.212
                        Safari/537.36'},
            'requestId': '449906A5C736D819123288133F2797E6'}}

{'method': 'Network.responseReceivedExtraInfo',
 'params': {'blockedCookies': [],
            'headers': {'alt-svc': 'h3-27=":443"; ma=86400, h3-28=":443";
            'ma=86400, h3-29=":443"; ma=86400',
```

```
'cache-control': 'private, max-age=0, no-store, '
                    'no-cache, must-revalidate, '
                    'post-check=0, pre-check=0',
'cf-ray': '65444b779ae6546f-LHR',
'cf-request-id': '0a3e8d7eba0000546ffd3fa000000001',
'content-type': 'text/html; charset=UTF-8',
'date': 'Mon, 24 May 2021 05:58:53 GMT',
'expect-ct': 'max-age=604800, '
            'report-uri="https://report-uri.cloudflare.com/cdn-cgi/be
'expires': 'Thu, 01 Jan 1970 00:00:01 GMT',
'nel': '{"report_to":"cf-nel","max_age":604800}',
'permissions-policy': 'accelerometer=(),autoplay=(),camera=(),clipboar
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'fromDiskCache': False,
'fromPrefetchCache': False,
'fromServiceWorker': False,
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                'h3-29=":443"; ma=86400',
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                'must-revalidate, '
                'post-check=0, '
                'pre-check=0',
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'cf-request-id': '0a3e8d7eba0000546ffd3fa000000001',
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'date': 'Mon, 24 May 2021 05:58:53 GMT',
'expect-ct': 'max-age=604800, '
            'report-uri="https://report-uri.cloudflare.c
'expires': 'Thu, 01 Jan 1970 00:00:01 GMT',
'nel': '{"report_to":"cf-nel","max_age":604800}',
'permissions-policy': 'accelerometer=(),autoplay=(),camer
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'vary': 'Accept-Encoding',
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'remotePort': 443,
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'path': '/',
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'accept': 'text/html,application/xhtml+xml,applica
'accept-encoding': 'gzip, deflate, '
                'br',
'accept-language': 'en-US,en;q=0.9',
'sec-ch-ua': '" Not '
                'A;Brand";v="99", '
                '"Chromium";v="90", '
                '"Google '
                'Chrome";v="90"',
'sec-ch-ua-mobile': '?0',
'sec-fetch-dest': 'document',
'sec-fetch-mode': 'navigate',
'sec-fetch-site': 'none',
'sec-fetch-user': '?1',
'upgrade-insecure-requests': '1',
'user-agent': 'Mozilla/5.0 '
                '(Windows NT 10.0; '
                'Win64; x64) '
                'AppleWebKit/537.36 '
                '(KHTML, like Gecko) '
                'Chrome/90.0.4430.212 '
                'Safari/537.36'},
'responseTime': 1621835932177.923,
```

```
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                                       'nowsecure.nl'],
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'in
'ce
'signatureAlg
'signatureDat
'status': 'Ve
'timestamp':
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'logDescripti

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'signatureDat
'status': 'Ve
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                      'securityOrigin': 'https://nowsecure.nl',
                      'url': 'https://nowsecure.nl/}}}}
{'method': 'Network.dataReceived',
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```



```

    'timestamp': 190011.093343}}
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 'like Gecko) '
 'Chrome/90.0.4430.212 '
 'Safari/537.36',
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 '"Chromium";v="90", "Google '
 'Chrome";v="90"',
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'type': 'Script',
'wallTime': 1621835932.221325}}
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 '10.0; Win64; x64) '
 'AppleWebKit/537.36 (KHTML, '
 'like Gecko) '
 'Chrome/90.0.4430.212 '
 'Safari/537.36',
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 '"Chromium";v="90", "Google '
 'Chrome";v="90"',
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'type': 'Image',
'wallTime': 1621835932.222102}}
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 'initiator': {'type': 'parser', 'url': 'https://nowsecure.nl/'},
 'loaderId': '449906A5C736D819123288133F2797E6',
 'request': {'headers': {'Referer': 'https://nowsecure.nl/',
 'User-Agent': 'Mozilla/5.0 (Windows NT '
 '10.0; Win64; x64) '

```

```
        'AppleWebKit/537.36 (KHTML, '
        'like Gecko) '
        'Chrome/90.0.4430.212 '
        'Safari/537.36',
        'sec-ch-ua': '" Not A;Brand";v="99", '
        '"Chromium";v="90", "Google '
        'Chrome";v="90"',
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        'timestamp': 190011.109527,
        'type': 'Image',
        'wallTime': 1621835932.224719}}
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            'accept-encoding': 'gzip, deflate, br',
            'accept-language': 'en-US,en;q=0.9',
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                        '"Chromium";v="90", "Google '
                        'Chrome";v="90"',
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            'sec-fetch-dest': 'image',
            'sec-fetch-mode': 'no-cors',
            'sec-fetch-site': 'same-origin',
            'user-agent': 'Mozilla/5.0 (Windows NT 10.0; Win64; '
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                        'Gecko) Chrome/90.0.4430.212 '
                        'Safari/537.36'},
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                                    'privateNetworkRequestPolicy': 'WarnFromInsecureToMorePriv
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            'path': '/cdn-cgi/challenge-platform/h/b/orchestrate/jsch/v1?ray=65444b77',
            'scheme': 'https',
            'accept': '*/*',
            'accept-encoding': 'gzip, deflate, br',
            'accept-language': 'en-US,en;q=0.9',
            'referer': 'https://nowsecure.nl/',
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                        '"Chromium";v="90", "Google '
                        'Chrome";v="90"',
            'sec-ch-ua-mobile': '?0',
            'sec-fetch-dest': 'script',
            'sec-fetch-mode': 'no-cors',
            'sec-fetch-site': 'same-origin',
            'user-agent': 'Mozilla/5.0 (Windows NT 10.0; Win64; '
                        'x64) AppleWebKit/537.36 (KHTML, like '
                        'Gecko) Chrome/90.0.4430.212 '
                        'Safari/537.36'},
            'requestId': '17180.2'}}}
{'method': 'Network.requestWillBeSentExtraInfo',
 'params': {'associatedCookies': [],
            'clientSecurityState': {'initiatorIPAddressSpace': 'Public',
                                    'initiatorIsSecureContext': True,
                                    'privateNetworkRequestPolicy': 'WarnFromInsecureToMorePriv
'headers': {'authority': 'nowsecure.nl',
            'method': 'GET',
            'path': '/cdn-cgi/images/trace/jschal/nojs/transparent.gif?ray=65444b77',
            'scheme': 'https',
            'accept': 'image/avif,image/webp,image/apng,image/svg+xml,image/*,*/*;
            'accept-encoding': 'gzip, deflate, br',
            'accept-language': 'en-US,en;q=0.9',
```

```

        'referer': 'https://nowsecure.nl/',
        'sec-ch-ua': '" Not A;Brand";v="99", '
            '"Chromium";v="90", "Google '
            'Chrome";v="90"',
        'sec-ch-ua-mobile': '?0',
        'sec-fetch-dest': 'image',
        'sec-fetch-mode': 'no-cors',
        'sec-fetch-site': 'same-origin',
        'user-agent': 'Mozilla/5.0 (Windows NT 10.0; Win64; '
            'x64) AppleWebKit/537.36 (KHTML, like '
            'Gecko) Chrome/90.0.4430.212 '
            'Safari/537.36'},
        'requestId': '17180.4'}}
{'method': 'Network.responseReceivedExtraInfo',
 'params': {'blockedCookies': [],
  'headers': {'accept-ranges': 'bytes',
    'cache-control': 'max-age=7200\npublic',
    'cf-ray': '65444b781d1de604-LHR',
    'content-length': '42',
    'content-type': 'image/gif',
    'date': 'Mon, 24 May 2021 05:58:53 GMT',
    'etag': '"60a4d856-2a"',
    'expires': 'Mon, 24 May 2021 07:58:53 GMT',
    'last-modified': 'Wed, 19 May 2021 09:20:22 GMT',
    'server': 'cloudflare',
    'vary': 'Accept-Encoding',
    'x-content-type-options': 'nosniff',
    'x-frame-options': 'DENY'},
    'requestId': '17180.3',
    'resourceIPAddressSpace': 'Public'}}
{'method': 'Network.responseReceivedExtraInfo',
 'params': {'blockedCookies': [],
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    'cf-ray': '65444b781d1fe604-LHR',
    'content-length': '42',
    'content-type': 'image/gif',
    'date': 'Mon, 24 May 2021 05:58:53 GMT',
    'etag': '"60a4d856-2a"',
    'expires': 'Mon, 24 May 2021 07:58:53 GMT',
    'last-modified': 'Wed, 19 May 2021 09:20:22 GMT',
    'server': 'cloudflare',
    'vary': 'Accept-Encoding',
    'x-content-type-options': 'nosniff',
    'x-frame-options': 'DENY'},
    'requestId': '17180.4',
    'resourceIPAddressSpace': 'Public'}}
{'method': 'Network.resourceChangedPriority',
 'params': {'newPriority': 'High',
  'requestId': '17180.4',
  'timestamp': 190011.171057}}
{'method': 'Network.responseReceived',
 'params': {'frameId': 'F42BAE4BDD4E428EE2503CB5A7B4F700',
  'loaderId': '449906A5C736D819123288133F2797E6',
  'requestId': '17180.3',
  'response': {'connectionId': 0,
    'connectionReused': False,
    'encodedDataLength': 214,
    'fromDiskCache': False,
    'fromPrefetchCache': False,
    'fromServiceWorker': False,
    'headers': {'accept-ranges': 'bytes',
      'cache-control': 'max-age=7200\npublic',
      'cf-ray': '65444b781d1de604-LHR',
      'content-length': '42',
      'content-type': 'image/gif',
      'date': 'Mon, 24 May 2021 05:58:53 GMT',
      'etag': '"60a4d856-2a"',
      'expires': 'Mon, 24 May 2021 07:58:53 GMT',
      'last-modified': 'Wed, 19 May 2021 '
          '09:20:22 GMT',
      'server': 'cloudflare',
      'vary': 'Accept-Encoding',
      'x-content-type-options': 'nosniff',
      'x-frame-options': 'DENY'},
      'mimeType': 'image/gif',
      'protocol': 'h3-29',
      'remoteIPAddress': '104.21.5.197',
      'remotePort': 443,
      'requestHeaders': {'authority': 'nowsecure.nl',

```

```
    ':method': 'GET',
    ':path': '/cdn-cgi/images/trace/jschal/js/transpar
    ':scheme': 'https',
    'accept': 'image/avif,image/webp,image/apng,image/
    'accept-encoding': 'gzip, deflate, '
        'br',
    'accept-language': 'en-US,en;q=0.9',
    'referer': 'https://nowsecure.nl/',
    'sec-ch-ua': '" Not '
        'A;Brand";v="99", '
        '"Chromium";v="90", '
        '"Google '
        'Chrome";v="90"',
    'sec-ch-ua-mobile': '?0',
    'sec-fetch-dest': 'image',
    'sec-fetch-mode': 'no-cors',
    'sec-fetch-site': 'same-origin',
    'user-agent': 'Mozilla/5.0 '
        '(Windows NT 10.0; '
        'Win64; x64) '
        'AppleWebKit/537.36 '
        '(KHTML, like Gecko) '
        'Chrome/90.0.4430.212 '
        'Safari/537.36'}},
    'responseTime': 1621835932265.169,
    'securityDetails': {'certificateId': 0,
        'certificateTransparencyCompliance': 'compliant',
        'cipher': 'AES_128_GCM',
        'issuer': 'Cloudflare Inc ECC '
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        'keyExchange': '',
        'keyExchangeGroup': 'X25519',
        'protocol': 'QUIC',
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            '*.nowsecure.nl',
            'nowsecure.nl'],
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            'logDescripti

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        'origin': 'Em
            'in
            'ce
        'signatureAlg
        'signatureDat
        'status': 'Ve
        'timestamp':
        {'hashAlgorith
        'logDescripti

        'logId': '5CD
        'origin': 'Em
            'in
            'ce
        'signatureAlg
        'signatureDat
        'status': 'Ve
        'timestamp':

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        'validFrom': 1598659200,
        'validTo': 1630238400},
    'securityState': 'secure',
    'status': 200,
    'statusText': '',
    'timing': {'connectEnd': 26.087,
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        'dnsEnd': 0,
        'dnsStart': 0,
        'proxyEnd': -1,
        'proxyStart': -1,
        'pushEnd': 0,
        'pushStart': 0,
        'receiveHeadersEnd': 40.709,
        'requestTime': 190011.109386,
        'sendEnd': 26.346,
        'sendStart': 26.182,
        'sslEnd': 26.087,
        'sslStart': 0,
```

```

'workerFetchStart': -1,
'workerReady': -1,
'workerRespondWithSettled': -1,
'workerStart': -1},
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'timestamp': 190011.174536,
'type': 'Image'}}
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'params': {'dataLength': 42,
'encodedDataLength': 0,
'requestId': '17180.3',
'timestamp': 190011.174737}}
{'method': 'Network.dataReceived',
'params': {'dataLength': 0,
'encodedDataLength': 44,
'requestId': '17180.3',
'timestamp': 190011.17524}}
{'method': 'Network.loadingFinished',
'params': {'encodedDataLength': 258,
'requestId': '17180.3',
'shouldReportCorbBlocking': False,
'timestamp': 190011.152073}}
{'method': 'Network.responseReceived',
'params': {'frameId': 'F42BAE4BDD4E428EE2503CB5A7B4F700',
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'requestId': '17180.4',
'response': {'connectionId': 0,
'connectionReused': True,
'encodedDataLength': 178,
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'fromPrefetchCache': False,
'fromServiceWorker': False,
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'content-length': '42',
'content-type': 'image/gif',
'date': 'Mon, 24 May 2021 05:58:53 GMT',
'etag': '"60a4d856-2a"',
'expires': 'Mon, 24 May 2021 07:58:53 GMT',
'last-modified': 'Wed, 19 May 2021
09:20:22 GMT',
'server': 'cloudflare',
'vary': 'Accept-Encoding',
'x-content-type-options': 'nosniff',
'x-frame-options': 'DENY'},
'mimeType': 'image/gif',
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'remoteIPAddress': '104.21.5.197',
'remotePort': 443,
'requestHeaders': {'authority': 'nowsecure.nl',
'method': 'GET',
:path': '/cdn-cgi/images/trace/jschal/nojs/transp
:scheme': 'https',
'accept': 'image/avif,image/webp,image/apng,image/
'accept-encoding': 'gzip, deflate,
'br',
'accept-language': 'en-US,en;q=0.9',
'referer': 'https://nowsecure.nl/',
'sec-ch-ua': '" Not
A;Brand";v="99",
"Chromium";v="90",
"Google
Chrome";v="90"',
'sec-ch-ua-mobile': '?0',
'sec-fetch-dest': 'image',
'sec-fetch-mode': 'no-cors',
'sec-fetch-site': 'same-origin',
'user-agent': 'Mozilla/5.0
(Windows NT 10.0;
Win64; x64)
AppleWebKit/537.36
(KHTML, like Gecko)
Chrome/90.0.4430.212
Safari/537.36'}},
'responseTime': 1621835932268.067,
'securityDetails': {'certificateId': 0,
'certificateTransparencyCompliance': 'compliant',
'cipher': 'AES_128_GCM',
'issuer': 'Cloudflare Inc ECC

```

```
        'CA-3',
        'keyExchange': '',
        'keyExchangeGroup': 'X25519',
        'protocol': 'QUIC',
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                    '*.nowsecure.nl',
                    'nowsecure.nl'],
        'signedCertificateTimestampList': [{ 'hashAlgorithm':
                                              'logDescripti

        'logId': 'F65
        'origin': 'Em
        'in
        'ce
        'signatureAlg
        'signatureDat
        'status': 'Ve
        'timestamp':
        { 'hashAlgorithm
        'logDescripti

        'logId': '5CD
        'origin': 'Em
        'in
        'ce
        'signatureAlg
        'signatureDat
        'status': 'Ve
        'timestamp':

        'subjectName': 'sni.cloudflaressl.com',
        'validFrom': 1598659200,
        'validTo': 1630238400},
        'securityState': 'secure',
        'status': 200,
        'statusText': '',
        'timing': { 'connectEnd': -1,
                    'connectStart': -1,
                    'dnsEnd': -1,
                    'dnsStart': -1,
                    'proxyEnd': -1,
                    'proxyStart': -1,
                    'pushEnd': 0,
                    'pushStart': 0,
                    'receiveHeadersEnd': 42.415,
                    'requestTime': 190011.110341,
                    'sendEnd': 25.713,
                    'sendStart': 25.609,
                    'sslEnd': -1,
                    'sslStart': -1,
                    'workerFetchStart': -1,
                    'workerReady': -1,
                    'workerRespondWithSettled': -1,
                    'workerStart': -1},
        'url': 'https://nowsecure.nl/cdn-cgi/images/trace/jschal/nojs/transpa
        'timestamp': 190011.175727,
        'type': 'Image'}}
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              'timestamp': 190011.175856}}
{'method': 'Network.dataReceived',
 'params': { 'dataLength': 0,
              'encodedDataLength': 44,
              'requestId': '17180.4',
              'timestamp': 190011.176133}}
{'method': 'Network.loadingFinished',
 'params': { 'encodedDataLength': 222,
              'requestId': '17180.4',
              'shouldReportCorbBlocking': False,
              'timestamp': 190011.153335}}
{'method': 'Network.responseReceivedExtraInfo',
 'params': { 'blockedCookies': [],
              'headers': { 'alt-svc': 'h3-27=":443"; ma=86400, h3-28=":443"; '
                           'ma=86400, h3-29=":443"; ma=86400',
                           'cache-control': 'max-age=0, must-revalidate',
                           'cf-ray': '65444b781dee604-LHR',
                           'cf-request-id': '0a3e8d7f140000e60496387000000001',
```

```
'content-encoding': 'br',
'content-type': 'text/javascript',
'date': 'Mon, 24 May 2021 05:58:53 GMT',
'expect-ct': 'max-age=604800, '
    'report-uri="https://report-uri.cloudflare.com/cdn-cgi/be
    'nel': '{"report_to":"cf-nel","max_age":604800}',
'report-to': '{"endpoints":[{"url":"https://a.nel.cloudflare.com\\
'server': 'cloudflare',
'vary': 'Accept-Encoding'}],
'requestId': '17180.2',
'resourceIPAddressSpace': 'Public'}}
{'method': 'Network.responseReceived',
'params': {'frameId': 'F42BAE4BDD4E428EE2503CB5A7B4F700',
'loaderId': '449906A5C736D819123288133F2797E6',
'requestId': '17180.2',
'response': {'connectionId': 0,
'connectionReused': True,
'encodedDataLength': 510,
'fromDiskCache': False,
'fromPrefetchCache': False,
'fromServiceWorker': False,
'headers': {'alt-svc': 'h3-27=":443"; ma=86400, '
'h3-28=":443"; ma=86400, '
'h3-29=":443"; ma=86400',
'cache-control': 'max-age=0, '
'must-revalidate',
'cf-ray': '65444b781d1ee604-LHR',
'cf-request-id': '0a3e8d7f140000e60496387000000001',
'content-encoding': 'br',
'content-type': 'text/javascript',
'date': 'Mon, 24 May 2021 05:58:53 GMT',
'expect-ct': 'max-age=604800, '
'report-uri="https://report-uri.cloudflare.c
'nel': '{"report_to":"cf-nel","max_age":604800}',
'report-to': '{"endpoints":[{"url":"https://a.nel.clo
'server': 'cloudflare',
'vary': 'Accept-Encoding'}],
'mimeType': 'text/javascript',
'protocol': 'h3-29',
'remoteIPAddress': '104.21.5.197',
'remotePort': 443,
'requestHeaders': {'authority': 'nowsecure.nl',
'method': 'GET',
'path': '/cdn-cgi/challenge-platform/h/b/orchestr
'scheme': 'https',
'accept': '*/*',
'accept-encoding': 'gzip, deflate, '
'br',
'accept-language': 'en-US,en;q=0.9',
'referer': 'https://nowsecure.nl/',
'sec-ch-ua': '" Not '
'A;Brand";v="99", '
'"Chromium";v="90", '
'"Google '
'Chrome";v="90"',
'sec-ch-ua-mobile': '?0',
'sec-fetch-dest': 'script',
'sec-fetch-mode': 'no-cors',
'sec-fetch-site': 'same-origin',
'user-agent': 'Mozilla/5.0 '
'(Windows NT 10.0; '
'Win64; x64) '
'AppleWebKit/537.36 '
'(KHTML, like Gecko) '
'Chrome/90.0.4430.212 '
'Safari/537.36'}},
'responseTime': 1621835932301.817,
'securityDetails': {'certificateId': 0,
'certificateTransparencyCompliance': 'compliant',
'cipher': 'AES_128_GCM',
'issuer': 'Cloudflare Inc ECC '
'CA-3',
'keyExchange': '',
'keyExchangeGroup': 'X25519',
'protocol': 'QUIC',
'sanList': ['sni.cloudflaressl.com',
'*.nowsecure.nl',
'nowsecure.nl'],
'signedCertificateTimestampList': [{'hashAlgorith
'logDescripti
```

```
'logId': 'F65',
'origin': 'Em',
'in':
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'signatureAlg',
'signatureDat',
'status': 'Ve',
'timestamp':
{'hashAlgorith',
'logDescripti

'logId': '5CD',
'origin': 'Em',
'in':
'ce',
'signatureAlg',
'signatureDat',
'status': 'Ve',
'timestamp':

'subjectName': 'sni.cloudflaressl.com',
'validFrom': 1598659200,
'validTo': 1630238400},
'securityState': 'secure',
'status': 200,
'statusText': '',
'timing': {'connectEnd': -1,
'connectStart': -1,
'dnsEnd': -1,
'dnsStart': -1,
'proxyEnd': -1,
'proxyStart': -1,
'pushEnd': 0,
'pushStart': 0,
'receiveHeadersEnd': 78.885,
'requestTime': 190011.107975,
'sendEnd': 27.934,
'sendStart': 27.809,
'sslEnd': -1,
'sslStart': -1,
'workerFetchStart': -1,
'workerReady': -1,
'workerRespondWithSettled': -1,
'workerStart': -1},
'url': 'https://nowsecure.nl/cdn-cgi/challenge-platform/h/b/orchestra',
'timestamp': 190011.188468,
'type': 'Script'}}
{'method': 'Network.dataReceived',
'params': {'dataLength': 31556,
'encodedDataLength': 0,
'requestId': '17180.2',
'timestamp': 190011.188663}}
{'method': 'Network.dataReceived',
'params': {'dataLength': 6737,
'encodedDataLength': 11251,
'requestId': '17180.2',
'timestamp': 190011.198249}}
{'method': 'Network.dataReceived',
'params': {'dataLength': 0,
'encodedDataLength': 2049,
'requestId': '17180.2',
'timestamp': 190011.200943}}
{'method': 'Network.loadingFinished',
'params': {'encodedDataLength': 13810,
'requestId': '17180.2',
'shouldReportCorbBlocking': False,
'timestamp': 190011.198142}}
{'method': 'Page.loadEventFired', 'params': {'timestamp': 190011.204711}}
{'method': 'Page.frameScheduledNavigation',
'params': {'delay': 12,
'frameId': 'F42BAE48DD4E428EE2503CB5A7B4F700',
'reason': 'metaTagRefresh',
'url': 'https://nowsecure.nl/'}}
{'method': 'Page.frameStoppedLoading',
'params': {'frameId': 'F42BAE48DD4E428EE2503CB5A7B4F700'}}
{'method': 'Network.requestWillBeSent',
'params': {'documentURL': 'https://nowsecure.nl/',
'frameId': 'F42BAE48DD4E428EE2503CB5A7B4F700',
```



```

        'hasUserGesture': False,
        'initiator': {'type': 'other'},
        'loaderId': '449906A5C736D819123288133F2797E6',
        'request': {'headers': {'Referer': 'https://nowsecure.nl/',
                                'User-Agent': 'Mozilla/5.0 (Windows NT '
                                                '10.0; Win64; x64) '
                                                'AppleWebKit/537.36 (KHTML, '
                                                'like Gecko) '
                                                'Chrome/90.0.4430.212 '
                                                'Safari/537.36',
                                'sec-ch-ua': '" Not A;Brand";v="99", '
                                                '"Chromium";v="90", "Google '
                                                'Chrome";v="90"',
                                'sec-ch-ua-mobile': '?0'},
                    'initialPriority': 'High',
                    'method': 'GET',
                    'mixedContentType': 'none',
                    'referrerPolicy': 'strict-origin-when-cross-origin',
                    'url': 'https://nowsecure.nl/favicon.ico'},
        'requestId': '17180.5',
        'timestamp': 190011.210491,
        'type': 'Other',
        'wallTime': 1621835932.325683}}
{'method': 'Network.requestWillBeSentExtraInfo',
 'params': {'associatedCookies': [{'blockedReasons': [],
                                   'cookie': {'domain': 'nowsecure.nl',
                                               'expires': 1621839532,
                                               'httpOnly': False,
                                               'name': 'cf_chl_prog',
                                               'path': '/',
                                               'priority': 'Medium',
                                               'sameParty': False,
                                               'secure': False,
                                               'session': False,
                                               'size': 12,
                                               'sourcePort': 443,
                                               'sourceScheme': 'Secure',
                                               'value': 'e'}}],
            'clientSecurityState': {'initiatorIPAddressSpace': 'Public',
                                     'initiatorIsSecureContext': True,
                                     'privateNetworkRequestPolicy': 'WarnFromInsecureToMorePriv
'headers': {'':authority': 'nowsecure.nl',
            ':method': 'GET',
            ':path': '/favicon.ico',
            ':scheme': 'https',
            'accept': 'image/avif,image/webp,image/apng,image/svg+xml,image/*,*/*;
            'accept-encoding': 'gzip, deflate, br',
            'accept-language': 'en-US,en;q=0.9',
            'cookie': 'cf_chl_prog=e',
            'referer': 'https://nowsecure.nl/',
            'sec-ch-ua': '" Not A;Brand";v="99", '
                        '"Chromium";v="90", "Google '
                        'Chrome";v="90"',
            'sec-ch-ua-mobile': '?0',
            'sec-fetch-dest': 'image',
            'sec-fetch-mode': 'no-cors',
            'sec-fetch-site': 'same-origin',
            'user-agent': 'Mozilla/5.0 (Windows NT 10.0; Win64; '
                          'x64) AppleWebKit/537.36 (KHTML, like '
                          'Gecko) Chrome/90.0.4430.212 '
                          'Safari/537.36'},

# hopefully you get the idea.

```

the easy way (v1 old stuff)

```

import undetected_chromedriver as uc

driver = uc.Chrome()
driver.get( 'https://distilnetworks.com' )

```

target specific chrome version (v1 old stuff)

```
import undetected_chromedriver as uc

uc.TARGET_VERSION = 85
driver = uc.Chrome()
```

monkeypatch mode (v1 old stuff)

Needs to be done before importing from selenium package

```
import undetected_chromedriver as uc

uc.install()

from selenium.webdriver import Chrome

driver = Chrome()
driver.get( 'https://distilnetworks.com' )
```

the customized way (v1 old stuff)

```
import undetected_chromedriver as uc

# specify chromedriver version to download and patch
uc.TARGET_VERSION = 78

# or specify your own chromedriver binary (why you would need this, i don't know)

uc.install(
    executable_path = 'c:/users/user1/chromedriver.exe' ,
)

opts = uc.ChromeOptions()
opts.add_argument( f'--proxy-server=socks5://127.0.0.1:9050' )
driver = uc.Chrome( options = opts )
driver.get( 'https://distilnetworks.com' )
```

datadome.co example (v1 old stuff)

These guys have actually a powerful product, and a link to this repo, which makes me wanna test their product. Make sure you use a "clean"ip for this one.

```
#
# STANDARD selenium Chromedriver
#
from selenium import webdriver

chrome = webdriver.Chrome()
chrome.get( 'https://datadome.co/customers-stories/toppreise-ends-web-scraping-and-content-the'
chrome.save_screenshot( 'datadome_regular_webdriver.png' )
True # it caused my ip to be flagged, unfortunately

#
# UNDETECTED chromedriver (headless,even)
#
import undetected_chromedriver as uc





options = uc.ChromeOptions()
options.headless = True
options.add_argument( '--headless' )
chrome = uc.Chrome( options = options )
```

```
chrome.get( 'https://datadome.co/customers-stories/toppreise-ends-web-scraping-and-content-the
chrome.save_screenshot( 'datadome_undetected_webddriver.png' )
```

Check both saved screenshots [here](#)



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