Detection and Profiling of Covert Web Activity: An Integrated Analysis Approach

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Executive Summary

The objective of this project was to identify and analyze websites that may serve as covert communication platforms by leveraging advanced Google search techniques ("Google dorking") in combination with manual and automated investigation into the nature and security posture of several suspicious websites. Using a combination of WHOIS lookups, IP tracking, Google dorks, webpage inspection, and Python automation, the analysis focused on identifying covert behaviors, security vulnerabilities, and site authenticity. Particular attention was given to form inputs, cookie security, and exposed files, providing a holistic view of each site's visibility and risk profile.

Introduction

he purpose of this report is to analyze potentially covert and suspicious websites through a multifaceted technical approach. Manual techniques such as WHOIS domain lookups and IP tracking were complemented by advanced methods, including Google dorks for targeted search queries and direct source code inspection. In addition, a Python script was employed to automate the assessment of site elements such as form inputs, cookie settings, and exposed files. This layered methodology enabled a thorough evaluation of site behavior, security features, and hidden risks.

Task Details and Working

UNDERSTANDING THE PATTERN:

The identification of covert messaging websites requires an understanding of the operational techniques historically employed by intelligence agencies, such as the CIA. These techniques focus on concealing secure communication channels within otherwise ordinary, public-facing websites. The purpose is to evade surveillance by masking secret functionality behind seemingly innocuous content.

Intelligence-Inspired Website Fronts

Intelligence agencies have utilized websites with benign themes—such as fan pages for sports teams, entertainment blogs, and hobbyist forums—as operational covers. These sites serve dual purposes: providing legitimate public content while secretly hosting covert channels for communication.

Core Features of Covert Messaging Sites

Based on my research and publicly available information, the following features are commonly associated with covert messaging websites:

• Public-Facing Simple Content:

The main interface appears as an ordinary website, such as a fan page or personal blog, with no immediate indication of secure or secret features.

Hidden Password Fields or Dual-Layer Logins:

Secure login forms or password fields are embedded within the HTML source code, often hidden from direct view. They may only be accessible via specific actions, URLs, or triggers known to trusted users.

• Repeated HTML Structures or Templates Across Sites:

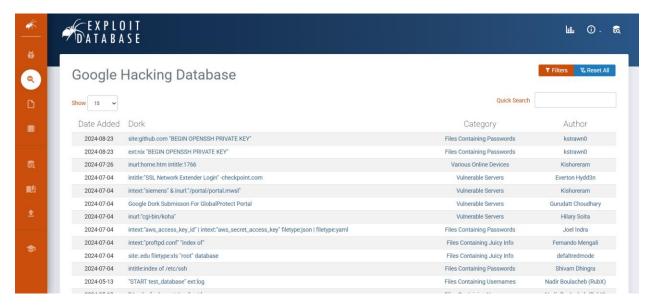
Multiple covert sites may use identical or highly similar HTML, CSS, or JavaScript templates, suggesting the reuse of operational frameworks for consistency and plausible deniability.

• Disguised Input Forms:

Input fields for passwords, messages, or agent identification are concealed or obfuscated, frequently using generic names (e.g., name="password", name="key") or hidden attributes, so as not to attract attention during casual inspection.

Google Dorking:

I sourced search queries from the Google Hacking Database (GHDB)

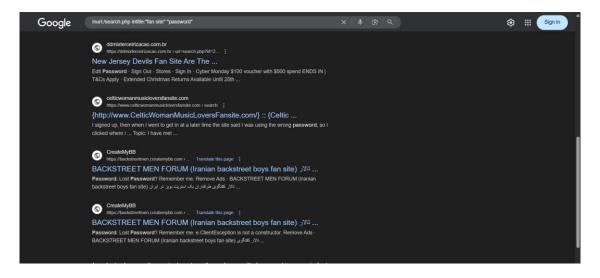


Applied them in Google Search by opening Chrome in o **Incognito**, to avoid personalized search bias and found websites with hidden login or communication features.

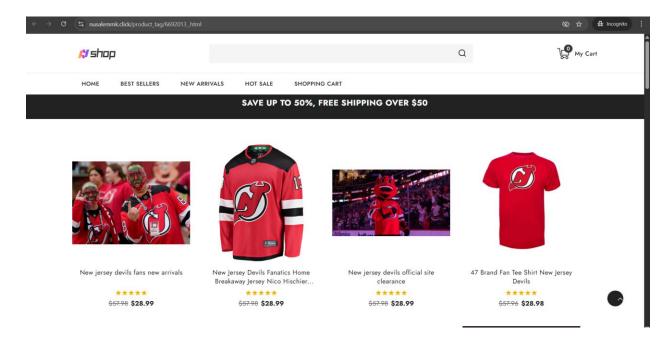
The resulting URLs were used for automated analysis.

ANALYSIS:

1. Find fan site pages that might unintentionally expose passwords.



https://nusalemmk.click/product_tag/6692013_.html



Results obtained from python script:

```
Form Details
                                    "type": "number",
                                    "name": null,
                                    "placeholder": null,
                                    "style": null,
                                   "form_action": "/cart"
                                    "type": "hidden",
                                   "name": " token",
                                   "placeholder": null,
                                    "style": null,
                                    "form_action": "https://nusalemmk.click/checkout"
                                    "type": null,
                                    "name": "test"
                                   "placeholder": null,
                                   "style": "display:none",
                                   "form_action": "https://nusalemmk.click/checkout"
Weak Cookies
                                 Weak cookie: XSRF-
                                 9VZEFJOU91RXp4Nk5VQ0ZGZjhQSjBRdnEvU3o2b1BOakpGZG1BUFMiLCJtYWMiOiIwNjYyNGI5NTVhMTNhYj
                                 gwNWVkNDNhOGU0Y2IzZGZmODQzMTBiMzIyYzIwZmQwZmJIYzU4NjVhNzQ5NDkyOGZiliwidGFnIjoiIn0\%3D; \\
                                 SameSite=Lax; Path=/; Max-Age=7200; Expires=Fri
                                 laravel session=evJpdi16Ing1cmlPVStaUExtd0dzV1kzOEFsZHc9PSIsInZhbHVIIjoieVhzak9qVkNMVIRrNEF6eW44S
                                 W8xWDhSMkFOeW9IN0JJL3A1UzBoT09pbFA1ZENia0M5ekZ2WWJUY09GSzIxVTRBT2F6c1pDbkpEcWhpWFZQc
                                 DRuc2NNT0lzZVdZRWVheUUyeTkrZDZ2dWljU29YK0hRSHJPQ0U0SmZjamNuNGoiLCJtYWMiOiJkYzAzZWQ2NLOSMZJamNuNGOiLCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAMNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZJAWNUNGOILCJtYWMiOiJkYzAzZWQ2NLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQNLOSMZYQ
                                 nIjoiIn0%3D; HttpOnly; SameSite=Lax; Path=/; Max-Age=7200; Expires=Fri
Exposed
                                 https://nusalemmk.click/config.php [200]
Files/Dirs
                                 https://nusalemmk.click/backup [200]
                                 https://nusalemmk.click/backups [200]
                                 https://nusalemmk.click/db backup [200]
                                 https://nusalemmk.click/database.sql [200]
                                 https://nusalemmk.click/dump.sql [200]
                                 https://nusalemmk.click/config.json [200]
```

• Hidden Form Fields

```
### Company of Company
```

This code shows hidden form fields (_token, test), which can be used to trigger secret actions or restrict access to insiders only.

• Obfuscated/Dynamic JavaScript

JavaScript contains long/hidden code with token, key, and login references — indicating possible hidden login/session logic.

```
| sear-Chatashourfalse, tokenTimes |
| passivestimates |
| passive
```

Exposed Files:

Highly sensitive files like config.php, database.sql, dump.sql, are directly accessible and publicly exposed, which is a major red flag.



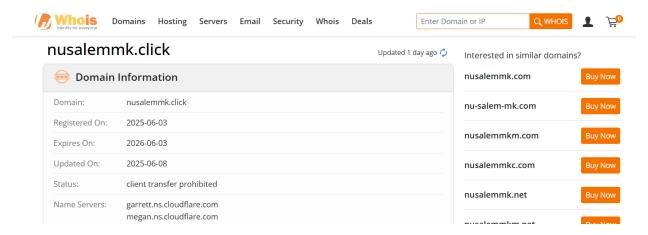
The server hides the real existence of sensitive files (like config.php, database.sql) by showing fake errors and using bot-deceptive behavior.

Weak Cookies

Weak cookies are not just a technical flaw—they can be a deliberate or accidental "backdoor" for covert, persistent, or insider-only site access.

WHOIS & IP TRACKING

The domain nusalemmk.click was registered recently (2025-06-03) with Sav.com, uses Cloudflare for privacy, and lists generic contact info. These factors, combined with the short registration period, are red flags for covert, spam, or temporary use.



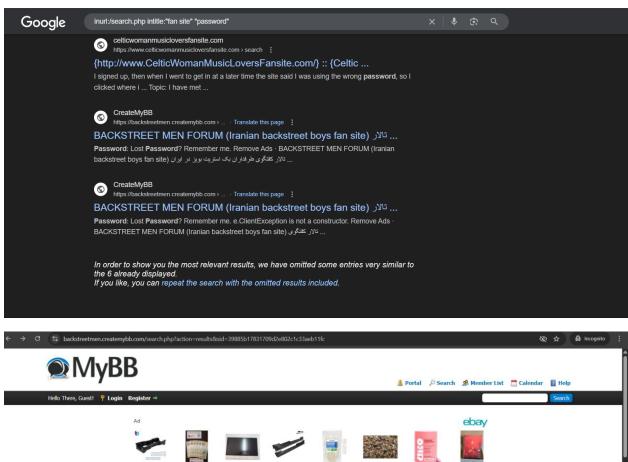
Registrant Contact			
Street:	2229 S Michigan Ave Suite 303		
City:	Chicago		
State:	IL		
Postal Code:	60616		
Country:	US		
Phone:	+1.2563740797		
Fax:	+1.2563740797		
Email:	https://www.sav.com/whois/results.aspx?domain=nusalemmk.click		

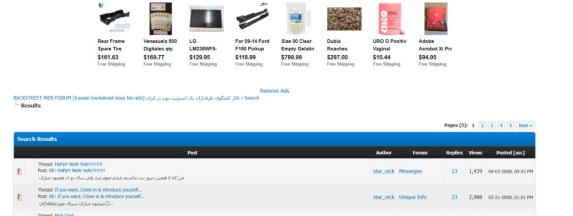
Administrative Contact		
Street:	2229 S Michigan Ave Suite 303	
City:	Chicago	
State:	IL	
Postal Code:	60616	
Country:	US	
Phone:	+1.2563740797	
Fax:	+1.2563740797	
Email:	https://www.sav.com/whois/results.aspx?domain=nusalemmk.click	

Rechnical Contact		
Street:	2229 S Michigan Ave Suite 303	
City:	Chicago	
State:	IL	
Postal Code:	60616	
Country:	US	
Phone:	+1.2563740797	
Fax:	+1.2563740797	
Email:	https://www.sav.com/whois/results.aspx?domain=nusalemmk.click	

.

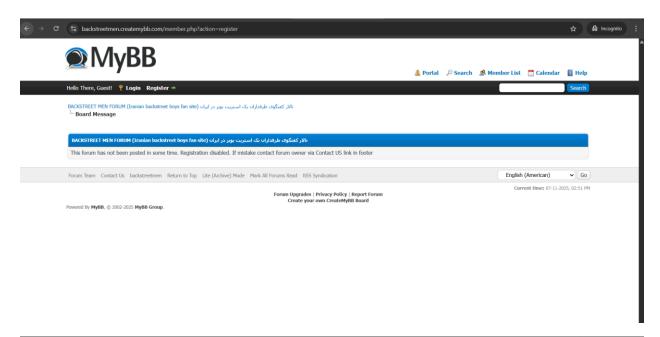
2. Second suspicious website found

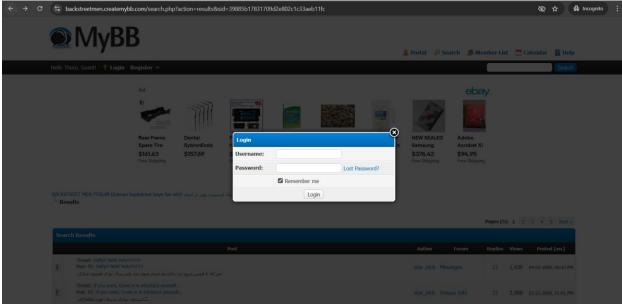




https://backstreetmen.createmybb.com/search.php?action=results&sid=39885b17831709d2e802c1c33aeb11fc

The Backstreet Men Forum presents itself as a fan site, but registration is disabled and
only existing users can log in via a modal popup. The forum is inactive, and outsiders are
restricted from joining. This setup matches patterns seen in insider-only or covert
platforms, where access and posting are limited to pre-approved members.





• Login button visible, but form is hidden in a modal that appears only on click.

- quick login, my post key, and url fields not shown in source until modal is triggered.
- JavaScript dynamically injects the current page into the form

Weak cookies allow login sessions to be stolen easily if the site isn't using secure HTTPS.
 This can let insiders or attackers access accounts without needing passwords. Since the login form is hidden and registration is disabled, it looks like only trusted people are meant to use it. The weak security might be left on purpose to quietly allow access without attracting attention.

According to **OSINT** (**Open-Source Intelligence**) gathering practices and **covert communication indicators** used in intelligence operations ,covert websites often use:

- Non-obvious entry points (modals, triggers)
- Hidden login fields only accessible via JavaScript



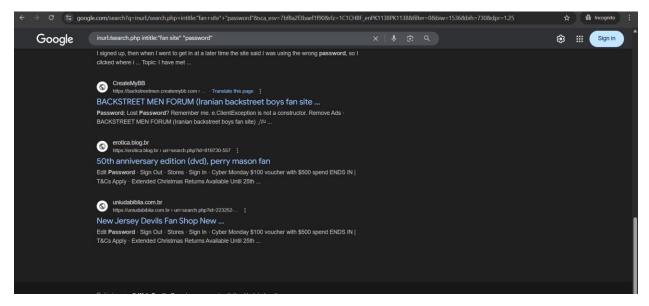
The forum is largely inactive, as evidenced by the absence of recent posts and replies. This inactivity suggests reduced visibility and limited external scrutiny.

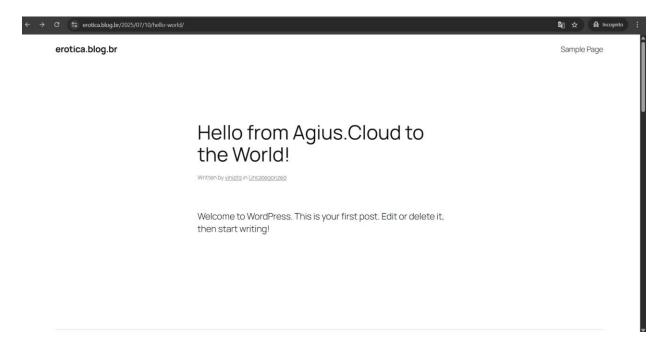
Python script results

```
Form Details
                   "type": "hidden",
                   "name": "postthread",
                   "placeholder": null,
                   "style": null,
                   "form_action": "https://backstreetmen.createmybb.com/search.php"
                   "type": "hidden",
                   "name": "action".
                   "placeholder": null,
                   "style": null,
                   "form action": "https://backstreetmen.createmybb.com/member.php"
                   "type": "hidden",
                   "name": "url",
                   "placeholder": null,
                   "style": null,
                   "form action": "https://backstreetmen.createmybb.com/member.php"
                   "type": "hidden",
                   "name": "quick_login",
                   "placeholder": null,
                   "style": null,
                   "form action": "https://backstreetmen.createmybb.com/member.php"
                   "type": "hidden",
                   "name": "my_post_key",
                   "placeholder": null,
                   "style": null,
                   "form action": "https://backstreetmen.createmybb.com/member.php"
                   "type": "password",
                   "name": "quick_password"
```

```
"placeholder": null,
                   "style": null,
                   "form action": "https://backstreetmen.createmybb.com/member.php"
                   "type": "hidden",
"name": "action",
                   "placeholder": null,
                   "style": null,
                   "form_action": "/search.php"
                   "type": "hidden",
                   "name": "sid",
                   "placeholder": null,
                   "style": null,
                   "form_action": "/search.php"
                   "type": "hidden",
                   "name": "my_post_key",
                   "placeholder": null,
                   "style": null,
                   "form_action": "/search.php"
                  Weak cookie: backstreetmenmybb[lastvisit]=1752236508; expires=Sat
Weak Cookies
                  Weak cookie: 11-Jul-2026 12:21:48 GMT; path=/
                  Weak cookie: backstreetmenmybb[lastactive]=1752236508; expires=Sat
                  Weak cookie: 11-Jul-2026 12:21:48 GMT; path=/
                  Weak cookie: backstreetmensid=088424a05676c9bc688c566eef1b34c1; path=/; HttpOnly
```

3. Not suspicious but a website for fake traffic





https://erotica.blog.br/2025/07/10/hello-world/

```
G () www.sourcehtps://eroticablogsbr/2025/07/10/helo-world/

inc. wesp ()

**Company to the company of the comp
```

• The site looks like a normal blog (WordPress), but the URL is strange.

The address has words like "search.php", "id=...", and "name=perry mason fan site" — which makes it look like a login or a fan page, but you only see a normal blog page.

• There are NO hidden login boxes or secret password places in the code.

The page only shows the default "Hello World" post.

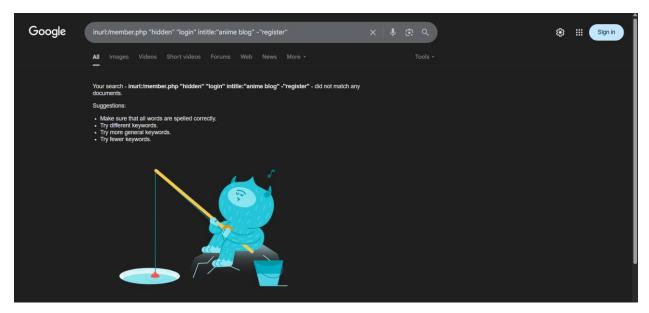
- There's no real fan site or login here; it's just the basic WordPress setup.
- The URL is misleading, and it uses confusing extra parts.

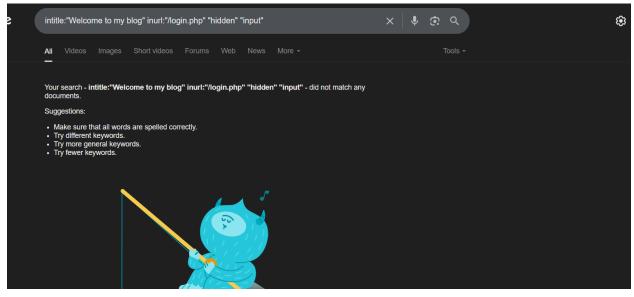
This could mean the site is trying to trick search engines, or is just set up as a "decoy" (fake site).

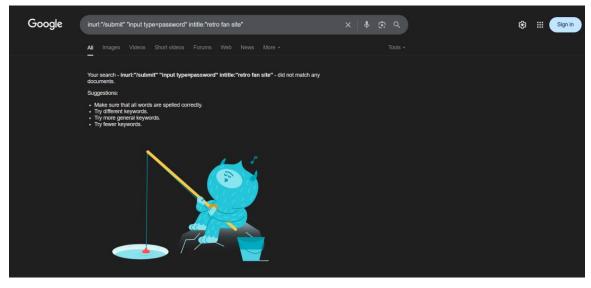
• No signs of secret communication or spy stuff.

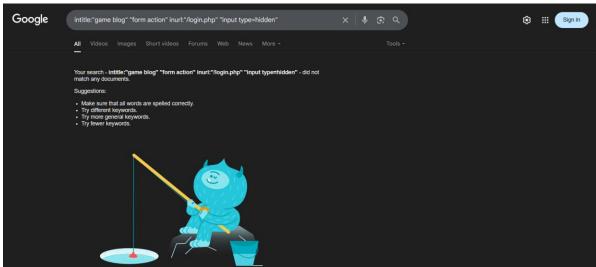
This site isn't a secret spy site or covert messaging page. It's just a blog with a weird URL, probably used for testing, fake traffic, or search engine tricks.

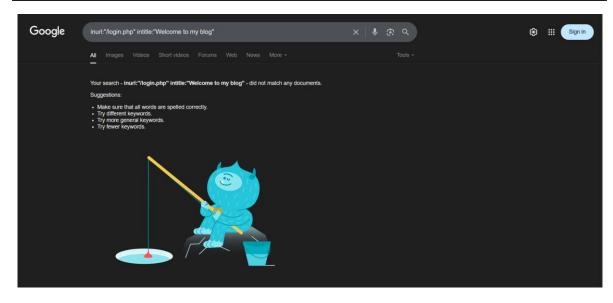
Multiple Google dorks returned no visible results on Google Search, indicating possible deindexing, cloaking, or anti-bot/anti-crawl protections."











Learning Outcomes

- Developed proficiency in manual and automated web investigation techniques.
- Learned to interpret and leverage WHOIS and IP tracking data for site profiling.
- Used Google dorks to uncover hidden or sensitive site resources.
- Enhanced skills in web page source code inspection for detecting vulnerabilities.
- Gained experience in automating security checks using Python, focusing on form input validation, cookie security, and exposed files.
- Identified key patterns that distinguish covert/insider-only sites from typical public websites.
- Understood how to combine multiple data sources for a comprehensive risk assessment.

Conclusion

Through manual and automated techniques, the investigation revealed varying levels of transparency, security practices, and potential covert activity across the analyzed websites. Sites with open WHOIS data and public-facing content tended to be less suspicious, while those blocking crawlers, disabling registration, or exhibiting weak cookie security were flagged as higher risk. The use of Python automation enhanced the speed and consistency of vulnerability detection. Overall, the report demonstrates the value of combining manual expertise with automation to robustly assess modern web platforms for covert activity and security risks.

PYTHON SCRIPT:

```
import requests
from bs4 import BeautifulSoup
import re
from urllib.parse import urljoin, urlparse
from docx import Document
from docx.shared import Pt
urls = [
    "https://backstreetmen.createmybb.com/search.php?action=results&sid=39885b178
31709d2e802c1c33aeb11fc",
    "https://nusalemmk.click/product tag/6692013 .html",
sensitive paths = [
    ".env", ".git/", "config.php", "wp-config.php", "backup", "backups",
"db_backup", "database.sql",
    "dump.sql", "config.json", "config.ini", "phpinfo.php"
def extract_form_details(soup):
   forms = soup.find all("form")
    findings = []
    for form in forms:
        for inp in form.find all("input"):
            details = {
                "type": inp.get("type"),
                "name": inp.get("name"),
                "placeholder": inp.get("placeholder"),
                "style": inp.get("style"),
                "form_action": form.get("action"),
            findings.append(details)
    return findings
def check_security_headers(headers):
    weak cookies = []
    cookies = headers.get("Set-Cookie")
    if not cookies:
        return weak cookies
    for cookie in cookies.split(", "):
        cval = cookie.lower()
        if "=" not in cookie:
```

```
continue
        has secure = "secure" in cval
        has_httponly = "httponly" in cval
        if not (has secure and has httponly):
            weak_cookies.append(f"Weak cookie: {cookie}")
    return weak cookies
def check_sensitive_paths(base_url):
    exposed = []
    parsed = urlparse(base url)
    root = f"{parsed.scheme}://{parsed.netloc}/"
    for path in sensitive paths:
        url = urljoin(root, path)
        trv:
            resp = requests.get(url, timeout=7)
            if resp.status code == 200 and ("Index of" in resp.text or
len(resp.text) > 30):
                exposed.append(f"{url} [{resp.status_code}]")
            elif resp.status code in (401, 403):
                continue
        except Exception:
            continue
    return exposed
results = []
for url in urls:
    print(f"Scraping: {url}")
    try:
        resp = requests.get(url, timeout=10)
        soup = BeautifulSoup(resp.text, "html.parser")
        form_details = extract_form_details(soup)
        weak cookies = check security headers(resp.headers)
        exposed files = check sensitive paths(url)
        results.append({
            "URL": url,
            "Form Details": '\n'.join(str(f) for f in form_details) if
form_details else "-",
            "Weak Cookies": '\n'.join(weak cookies) if weak cookies else "-",
            "Exposed Files/Dirs": '\n'.join(exposed_files) if exposed_files else
        })
```

```
except Exception as ex:
        print(f"Error scraping {url}: {ex}")
        results.append({
            "URL": url,
            "Form Details": "ERROR",
            "Weak Cookies": "-",
            "Exposed Files/Dirs": "-"
        })
# Write to Word document
document = Document()
document.add heading("Website Security Scan Results", 0)
for result in results:
    document.add_heading(result["URL"], level=1)
    table = document.add_table(rows=0, cols=2)
    table.style = 'Light List Accent 1'
    for key in ["Form Details", "Weak Cookies", "Exposed Files/Dirs"]:
        row = table.add row().cells
        row[0].text = key
        row[1].text = result[key]
        run = row[0].paragraphs[0].runs[0]
        run.font.bold = True
        run.font.size = Pt(11)
    document.add_paragraph() # blank line
docx_path = "covert_websites_findings_form_cookies_files.docx"
document.save(docx_path)
print(f"Results saved to {docx path}")
```