

VanguardScan

- So this is a tool we made during this course (TCM) that executes a strong OSINT scan on a domain in an automated way...
- It combines a lot tools executions at once sequencelly...
- We execute this script `"/VanguardScan.sh example.com"`
- It goes by Phases...

Phase 1

Phase 1 — Domain Intelligence

Whois Lookup

Pulls registration data:

- Registrar
- Creation/expiry dates
- Name servers

Useful for:

- Infrastructure clues
- Identifying related domains

Cloudflare Detection

Checks if the site is behind Cloudflare (or similar CDN/WAF).

Why this matters:

If Cloudflare is in front, the **real server IP is hidden** — so the script tries to find it anyway 🐞



- Here, we do the Whois Lookup thing


Phase 2

Phase 2 — Origin IP Discovery (If Behind Cloudflare)

Uses the **Censys API** to search internet-wide scan data for:

- Past exposures
- Misconfigured services
- Direct-to-origin IPs

This can reveal the **real server IP** that bypasses Cloudflare protection.

 This is a common red-team recon technique.

Phase 3


Phase 3 — Subdomain Enumeration

It runs **multiple tools** because each finds different things:

Tool	Strength
<code>subfinder</code>	Fast passive sources
<code>assetfinder</code>	Certificate transparency & public data
<code>amass</code>	Deep enumeration & graphing

All results are merged into:

```
all_subs.txt
```

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This builds the **full external attack surface**.



Phase 4

💡 Phase 4 — Find Which Hosts Are Actually Alive

Using:

```
bash
```

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```
httpprobe
```

It checks which subdomains actually respond over HTTP/HTTPS.

Output:

```
alive.txt
```

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Now you know which hosts are real web servers vs dead DNS entries.



Phase 5



Phase 5 — Crawling & Endpoint Discovery

Tool used: **katana**

It crawls live websites to find:

- Hidden endpoints (`/api/` , `/admin` , etc.)
- JavaScript files
- Deep links not obvious from the homepage

This is how you discover **unlinked or forgotten functionality**.

Phase 6


Phase 6 — Sensitive Data Scraping

From crawled content it extracts:

Emails

Stored in:

```
bash
```

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```
scraped_data/emails.txt
```

Useful for:


- OSINT
- Phishing simulations (in legal engagements)

JavaScript Files

Stored in:

```
javascript_files.txt
```



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JS files often contain:

- API endpoints
- Keys
- Hidden routes


Interesting Files

It fuzzes for common sensitive paths like:

- `.env`
- `.git/config`
- `robots.txt`
- Backup files

Saved in:

```
interesting_files.txt
```

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These are classic misconfiguration leaks.



Phase 7


Phase 7 — Port Scanning

Runs Nmap on live hosts to discover:

- Open ports
- Running services
- Possible entry points beyond web (SSH, FTP, DBs...)

Output:

```
nmap_scan.txt
```

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Phase 8

Phase 8 — Visual Recon

Screenshots with `gowitness`


Takes screenshots of every live web page.

Why this is powerful:

- Quickly spot admin panels
- Identify tech stacks visually
- Detect staging/dev sites

Saved in:

```
screenshots/
```

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Favicon Download

Grabs the site favicon.

Favicons can be used to:


- Fingerprint frameworks
- Find other sites using the same icon

Final Output

Final Output = Organized Recon Report

You end up with a structured folder like:

pgsql







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```
VanguardScan_example.com/
|
|— summary.txt           ← High-level overview
|— all_subs.txt          ← Every discovered subdomain
|— alive.txt             ← Reachable web hosts
|— whois.txt
|— nmap_scan.txt
|— potential_origin_ips.txt ← Real IPs (if found)
|
|— scraped_data/
|   |— emails.txt
|   |— javascript_files.txt
|   |— interesting_files.txt
|
|— screenshots/
|— logs/                 ← Raw tool outputs
```



Conclusion

So instead of running **10+ tools manually**, you get:

-  OSINT
-  Surface mapping
-  Endpoint discovery
-  Service scanning
-  Visual recon
-  Clean report

All in one go.