

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 sequentially...
- 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:

 [Copy code](#)

`all_subs.txt`

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:



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```
javascript_files.txt
```

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:

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```
interesting_files.txt
```



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.