# Virgil

# Web forensic with Lookyloo, capturing websites with Lacus, integration with Pandora



Raphaël Vinot

CIRCL Virtual Summer School 2025



## What is Yoyodyne IT

- Based in Bordeaux
  - Full remote \o/
- Building tools to help people make informed decisions
  - Actual intelligence is still our best bet
  - Opensource or GTFO
- Infosec trainings
  - Mostly to at-risk communities, journalists
- The tools are co-developped with (or invented by) Quinn Norton



### (some of the) Tools maintained by CIRCL



Computer Incident Response Center LUXEMBOURG



### The tools we're going to cover

- Lookyloo
  - https://lookyloo.circl.lu/capture
  - <u>https://lookyloo-demo.yoyodyne-it.eu/index</u>
  - https://github.com/Lookyloo
- Monitoring with Lookyloo
  - <u>https://monitoring-demo.yoyodyne-it.eu/</u>
  - https://monitor.circl.lu/
- Lacus
  - <u>https://lacus-demo.yoyodyne-it.eu/</u>
  - <u>https://github.com/ail-project/lacus</u>
- Pandora
  - <u>https://pandora-demo.yoyodyne-it.eu/submit</u>
  - <u>https://github.com/pandora-analysis</u>



## Virgil

- The *complete* tool suite
- One stop shop for all the configuration
  - VT, URL Scan, MISP(s), malware bazaar
  - Setup proxies for Lookyloo
- Easy install, update, start, stop
- Install on one or more machines
  - Uses Letsencrypt for TLS
  - Connect all the tools
- Properly installed in the filesystem
  - Easy to debug (not docker)
- Ansible playbooks
  - <u>https://github.com/Yoyodyne-IT/Virgil</u>



. ook 1/00

- Easy capture page to pass all the settings for the capture
  - <u>https://lookyloo-demo.yoyodyne-it.eu/capture</u>
- Can take an HTML file, or a list of URLs
- Pull or import from another instance
  - <u>https://lookyloo-demo.yoyodyne-it.eu/submit\_capture</u>
- Simple examples:
  - <u>https://lookyloo-demo.yoyodyne-it.eu/tree/754ab511-886c-42c5-826d-2456bd408c68</u>
  - https://lookyloo-demo.yoyodyne-it.eu/tree/132f142f-cf85-4164-8b20-8da4188d5072
  - <u>https://lookyloo-demo.yoyodyne-it.eu/tree/95df8d80-7582-40c4-81d8-1d00a25ba50c</u>
- File sample
  - <u>https://lookyloo-demo.yoyodyne-it.eu/tree/b068a584-8da3-4677-9a2f-8852b25e90d3</u>

## Lookyloo

- What is the tree
- Statistics
- Storage state
  - Cookies
  - Local storage
  - Indexed DB
- Screenshot & favicon(s)
- Downloads
  - o <u>https://lookyloo.circl.lu/tree/6e6a034a-a1bf-4991-b8e1-8c20cb096b4d</u>
- What are the hostnodes popups

## Lookyloo

- Menus for pivoting to captures
  - Indexes on ressources, IPs, Hostnames, Favicons
  - Fuzzy hash on the content of the page (DomHash)
  - Passive DNS
  - Hash lookup
- Subsequent captures
  - Keep state (storage)
- Push to another Lookyloo instance
- Categorization
- [Admin] 3rd party services (VT, Urlscan)
- [Admin] MISP integration (search, push)

### Lookyloo

- Incidence response and reporting
- Uses whois to get contacts for IP, ASN, and domain
- Get Security TXT file if any
- Contact for IPFS URLs
- Submit to a ticketing system (RTIR)

- Example:
  - https://lookyloo.circl.lu/tree/8246b282-19f1-4e2f-a529-c02fde957d03

### Capture instrumentation

- 1. Capture headless by default
- 2. Tries to act like a normal user (in this order)
  - 2.1. [On Demand] tries to bypass GDPR overlay
  - 2.2. Moves mouse on the page
  - 2.3. Hit keyboard
  - 2.4. Jump to fragment on page is any (#<id>)
  - 2.5. Attempts to move time forward to trigger JS on a timer
  - 2.6. Random waits
  - 2.7. Waits for network idle (500ms without traffic)
- 3. Instrumentation
  - 3.1. <u>https://github.com/Lookyloo/PlaywrightCapture/blob/main/playwrightcapture/capture.py#L805</u>

### Headfull capture

- Sometimes want/need to interact with a page
  - o <u>https://lookyloo.circl.lu/tree/d580503d-deba-4707-be92-79c14321fe71</u>
- Only possible on a machine with a graphical interface
  - <u>http://127.0.0.1:5100/</u>
  - http://127.0.0.1:5100/tree/db389f5b-6d78-4b59-8fda-1e319be93dd8
- Once captured, push to remote instance
  - <u>https://lookyloo.circl.lu//tree/db389f5b-6d78-4b59-8fda-1e319be93dd8</u>

#### Capture Configuration 💿



# URL Monitoring (WiP)

- Unexpected changes on a legitimate site
  - Defacement
- New domain renders something
  - New domain used for phishing months after registration
- Email notification
- Comparing captures is difficult
  - Network (IPs) & redirects to a landing page
  - Changes on landing page
  - Big websites with ads networks are extremely problematic
- https://lookyloo-demo.yoyodyne-it.eu/tree/754ab511-886c-42c5-826d-2456bd408c68



- Standalone capturing interface
- In memory, no long term storage
- API only, only website is the documentation
  - https://lacus-demo.yoyodyne-it.eu/
- Usage
  - Submit capture with settings
  - Check regularly if it's done (~30s)
  - Get the result

#### Lacus

#### • Result of a capture

- Screenshot
- Rendered HTML (!= the response of the GET request)
- Storage (cookies, local storage, indexed DB)
- $\circ$  URL in the browser bar
- Favicon(s)
- Runtime
- Downloaded file(s)
- HTTP Archive (HAR)

#### Sample script with PyLacus

from pylacus import PyLacus

```
client = PyLacus(root_url="https://lacus-demo.yoyodyne-it.eu/")
```

```
uuid = client.enqueue(url="https://google.fr")
```

```
status = client.get_capture_status(uuid)
```

```
# -1: unknown
```

```
# 0: queued (not started)
```

# 1: done

```
# 2: capture started
```

```
_
```

```
# When status == 1
```

```
r = client.get_capture(uuid)
```

### **Captures & Proxies**

- Support for wireguard proxies via wireproxy
  - <u>https://github.com/whyvl/wireproxy</u>
- Can use ProtonVPN to exit from anywhere
  - They offer wireguard configs
  - The proxies must be pre-configured in Lacus
- Automatic update of the IP addresses in the HAR
  - Only for Socks5 proxies
- Example:
  - o uuid = client.enqueue(url="<u>https://google.fr</u>", proxy="US")
  - o r = client.get\_capture(uuid)
  - o r['last\_redirected\_url']
    - https://www.google.com/?zx=1751807845231&no\_sw\_cr=1



- Initial goal
  - People receive attachments via email
  - Stop submitting people's passports on Virus Total
  - Do not require the help desk to check manually every attachment
- View the content of a file
- Let people do their work
- Share link to analysis
- Submit to help desk
  - <u>https://pandora-demo.yoyodyne-it.eu/submit</u>
- Lots of false positives and negatives

#### Pandora

- Can listen on an IMAP mailbox for forwarded emails
- Extracts archives
- Can create new modules for specific usecases
- Supports custom Yara rules
- Extract observables (email, hashes, URLs)
  - URLs can be submitted to lookyloo
- HTML doc -> Submit to Lookyloo
- Downloaded files in Lookyloo -> Submit to Pandora

### Virgil

- Deploys Lacus, Lookyloo, Pandora
- On one or more machine
  - The relevant config files are setup as they should be
  - Requires domains so we can use letsencrypt
- Lets you configure the modules with the right API keys if needed
  - VT, malware bazaar, urlscan, urlhaus, hybridanalysis, joesandbox, mwdb
  - Setup the proxies for Lookyloo / Lacus
- Easy update for all the tools at once
  - One command to rule them all

### Integrations

- AIL (Lacus)
  - Workshop on Thursday the 17th
- Assembly line (Lacus & lookyloo) Work in progress
  - <u>https://github.com/Government-of-Yukon-IT-Security/assemblyline-service-lookyloo</u>
  - <u>https://github.com/Government-of-Yukon-IT-Security/assemblyline-service-lacus</u>
- OpenRelik (Lacus, Lookyloo?)
  - Not started yet, hopefully by the end of the year
  - <u>https://github.com/openrelik</u>

#### Python modules for integration

- PyLacus
  - <u>https://pypi.org/project/pylacus/</u>
- PyLookyloo
  - <u>https://pypi.org/project/pylookyloo/</u>
- PyLookylooMonitoring
  - <u>https://pypi.org/project/pylookyloomonitoring/</u>
- PyPandora
  - <u>https://pypi.org/project/pypandora/</u>
- PySecurityTXT
  - <u>https://pypi.org/project/pysecuritytxt/</u>

# Usecases and examples

#### Phishing and scams

- The leanest websites you'll see today
- Use interesting techniques to block the analysts
  - Or just use Cloudflare, they're the phishers best friends.
- Sometimes hard to reproduce a capture

NARVY AL Method Lander FEDERAL And
Welcome to Digital Banking
A Sign In Username Passed Sum Sum Diagon
Not a Navy Federal member? Join now and enjoy the support and great service of a credit union that puts your needs first. Izcome a Nomber Izcome a Nomber
Don't have colline access? Exercise digital basis; Leven the digital basis; Leven two:
24/7 Microber Services: 1488-044-032           Mouring Number: 25607-0074           Abackit   Contactific   Philosy Nature   Service   A Annuality   Browner Singent         82310           4232   Service   Annuality   Service   A Annuality   Browner Singent         82310           4232   Service   Annuality   Service   A Annuality   Browner Singent         82310           4232   Service   Annuality   Service   Annuality   Browner Singent         82310           423   Service   Annuality   Service   Annuality   Service   Se

Navy Federal Credit Union https://lookyloo.circl.lu/tree/260406eb-1219-4379-a80d-3f3bad2bd683



Secure Area En español

#### Log In to Online Banking

User ID	Stay connected with our app	Login help
Save this User ID 💡	241	Forgot ID/Password?
	Secure, convenient	Problem logging in?
Password	banking anytime	Not using Online Banking?
Forgot your Password?	BANK OF AMERICA Get the app	Enroll now
		Learn more about Online Banking
🋍 Log In		Service Agreement



Bank of America https://lookyloo.circl.lu/tree/b500a676-ac38-4737-93bd-b03c83e5a89e



COMPTES & CARTES ÉPARGNE ASSURANCES CRÉDITS SIMULATION & DEVIS NOS CONSEILS ¥





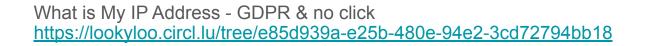


Credit Agricole https://lookyloo.circl.lu/tree/91015905-fdc9-456f-a4d4-6fc5d5e7ff61

### Tracking on legitimate websites

- GDPR is actually doing good things
- Everything is so much worse outside Europe
- It is still very bad
- Use an adblocker.









Frequently Asked Questions

What my IP address? Notany Two controls by PT receiver states must be obtain to contain surface brings your owner strate, somewhat we is unuer address and Marc

In der syster diederg werde, droupen, er schafte polien, ywe P and was onder in freedy instead der somer. Na songenet provi intereder verse Produkt (EV), diesenge seit kannen ist free bierene Frande ar wennen, in diedere er krammer, in an eine Appendie erste wege, namma der aber pas werden erstenen ist eine bieren frande ar wennen die bieren verse in eine Appendie ers 1970

so and our Degits have more adout towe 5 adorestic work, their impertance, and have to manage your come preserve effective

hat is a public IP address?

of it as your digital home address that endning you to conduced and vacant data start the internet. This address is assigned by your morem

w does my public IP address affect me?

Inspectant to note that while your public to editerative assesses for internet conversion, it can also consistency and accurate take, using inspectations and advecting on a public to address from the public part advectors and accurate public.

How do I show my IP address?

dish zandi far mamet motozal addinas, ni joor-anizan derofan ziri die koeme, Henris how you zandind ti

ip of the hompings. This we that does not insume any helt mind broaded per and works for any device considerable the minimum.

oleg a 👔 ar provy amount la reach year P adderea.

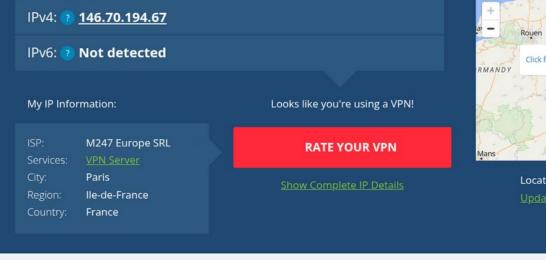
#### Should I change my IP address? Occurrence P address to beneficia for second

• Benefits and the second s

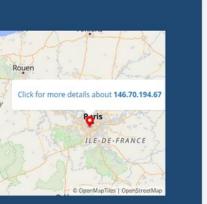
amman, thanging mur IP address through a relation OPI service on significantly improvement and services, and common







What is My IP Address - GDPR & Click https://lookyloo.circl.lu/tree/e67f2969-0a04-4ad6-94ca-7ffb1bf9f99b



Location not accurate? Update My IP Location



New does way public IP address affect we? Nexton: Publics due interference row your controls. Consume for

n représentementation de par paint d'antérie des entré la constant de constant presentent de constant presenten La constant de la cons La constant de la cons

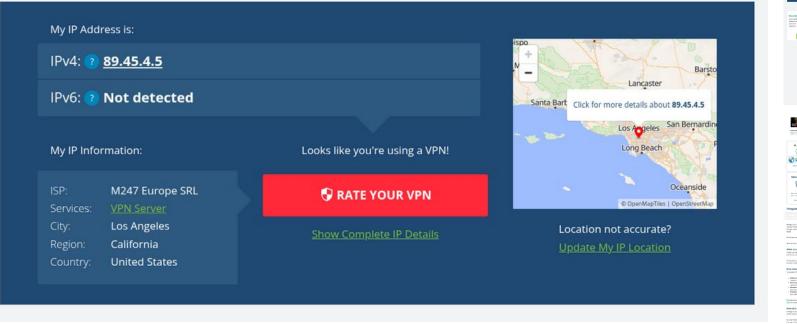
ně danosta zivensti homotovana, k pozrana zaklatene te zmred čerci koj pozratnici. O o čestní ko ženjačel rožena dog, na se velstaval area i kolostvatalo doby pozratel pálo Protec na ježi cesta, te interpativa na se na se na se pozratni na kaja zi cestních v ty tení zmred za te stanic.

Here weller, your party in this work and indexed in sharp part factors and rearest here in the derivative 20% Europy is a second or equilibrium party second and give it without

#### Should I change my IP address? Ourgegyser Paldressin benchatter see

Elisacian de la construcción de la construcción da construcción de la construcción d





What is My IP Address - No GDPR https://lookyloo.circl.lu/tree/fb750aa2-79b2-4f0d-af50-de27ff283796



#### nersen, sour weite Practices an mood Ministeria accurate bester and Meridean Control Poster SP, Agricos Adv. aung a state a programmers and your Praktices.

#### Should Licharge my IP address? Overprove Pattern order and other to

a branch Pringe and Learning VII, a long the pulse of a mission or rote within the series Theorem extra pulses have been as a mission of the series of th

Sindone Territoryo Isaliy's ana diguad anto dia pushod singger promotida atas.

the P Description of the second state of the second state and the second state of the





Public S'inscrire à la Newsletter

Obtenez l'exclusivité ! Abonnez-vous gratuitement pour être sûre de recevoir nos exclus people en avantpremière 😎

Pour que vous pulsitier vous abonner à une neveliters de Public avec voire compte Doogle, Doogle partiques vos nere de danses e-mail avec Public, contornement aux Conditions d'utilisation de Statounera avec Google et aux Regles de confidentations d'utilisation et à ses Regles de Conditions d'utilisation et à ses Regles de



Google Dejá Inscrit 7



#### Résumé

Vincent Shogun et sa compagne ont choisi de préserver la vie privée de leur fils de presque un an en refusant de dévoiler son visage sur les réseaux sociaux. Sur Instagram, le couple explique son choix.

Sommaire

COUVERTURE COMPLÈTE SUR VINCENT (LES CH'TIS)

C'est aujourd'hui un homme transformé. Personnage extrêmement volubile lorsqu'il a participé à la première saison des "Ch'tis" sur W9, Vincent Shogun a vu sa vie changer en l'espace de quelques années. En effet, suite à cette expérience, le jeune homme de 35 ans a participé à une multitude de téléréalités : "Les Princes de l'amour", "Les Anges", "La Villa des cœurs brisés\* ou encore "La bataille des couples". Côté cœur, l'ex d'Hillary, de Milla, de Barbara, de Jelena ou encore de Virginie a eu du mal à trouver chaussure à son

pied.

Qui phue est, <u>ite Nordingia</u> a di faire face à ses démons après avoir consommé pendant longtermo des substances illicites. Hoursesment, la vie de Vincent Shogun a radicalement changé et c depuis que <u>ce dennice</u> a croisé la route de Cela: Tous innoreas, tous le desur cont fini par se flancer en décembre 2023. Si la jeune finne rá torijours pas la hague au doigt. Il faut dire que <u>la decus tourterens</u> rivotra pas es le temp de s'ennuyer.

En effet, a l'automo <u>is</u> <u>tear</u> <u>els</u> <u>els</u> <u>els</u> <u>rear</u> <u>els</u> <u>els</u> <u>is</u> <u>els</u> <u>s</u> <u>s</u> <u>s</u> <u>s</u> <u>s</u> <u>s</u> <u>s</u>





Vincent Marwa (1 Vincent recours : Brisés) h compagr et le rést la compa jours api

#### MENTIONNÉS DANS CET ARTICLE



La publication a été dévoilée sur le compte de Célia. Cette dernière raconte alors : "Il y a quasiment un an, nos vies ont changé à jamais. Devenir parents, c'est un bouleversement qu'aucun livre, aucun conseil ne prépare vraiment. Ce n'est pas toujours simple, ce n'est pas toujours beau... mais c'est un amour immense, brut, qui nous a appris à nous oublier pour lut. Puis, la compagne de la <u>star du</u> Nord ajoute : "On a choisi de le protéger, de ne pas l'exposer, de ne pas faire de lui un enfant vitrine qu'on montre au monde. Il aura le droit de choisir ce qu'il veut partager, quand il sera préf.

Un choix tout à fait honorable et c'est également pour cette raison que le couple a été beaucoup moins présent sur Internet. "Cette Puis, la compagne de la <u>star du</u> <u>Nord</u> ajoute : 'On a choisi de le protéger, de ne pas lexposer, de ne pas faire de lui un enfant vitrine qu'on montre au monde. Il aura le droit de choisir ce qu'il veut partagier, quand il sera préf.

Un choix toui à fait honorable et c'est également pour cette raison que le couple a été beaucoup moins présent sur l'internet. 'Cette première année, ell e a été pour thir. Pour nous Loin des réseaux, loin du regard des autres le cenercier ses abonnés. 'Merci à cuu quí font compris E. trarecte autout à toutes les manans qui suvent. Cettes qui se sont entires seules, dépassées. Engiquées et él foitment aunorreuses en même temps, le vous revise.'et yous resense. El je vous remercier?

Écrit par Charlotte Arrigoni





Découvrez la nouvelle Alfa Romeo Junior Alta Romeo Junior



Ce SUV compact fait grande impression

#### leune boomne è à une allifés : Les t.es Angest, T.a és 'ou encore best: Côté cœur, a, de Barbara,

#### https://lookyloo.circl.lu/tree/06d8eadd-e19e-4d3b-8e27-f1846 de55b23

```
"uuid": "53d4a56e-2dca-4656-a664-fd347ea84cf0",
 "bidders": [
   "richaudience",
 "account": "org_KKBTSgXgyQiSgba5T",
 "filterSettings": {
   "image": {
     "bidders": "*",
     "filter": "include"
   "iframe": {
     "bidders": [
     "filter": "include"
 "qdpr": 1,
 "gdpr_consent": "CQTt-UAQTt-UAAHABBENBvFsAP_gAEPgAAqILSNT_G__bWlr-T73aftkeYxP9_h77sQxBgbJE-4FzLvW_JwXx2E5NAzatqI
x8v4v4_F7pE2-eS1n_pGvp6D9-YnM_9B299_bbffzPn__ql_-_X_vf_n37v943n77v___BaAAEw0KiCMsCAEIlAwggQAKCsICKBAEAACQMEBACYMC
nIGAC6wkQaqBQADBACAAEGAAIAAAIAEIqAoAKBAABAIFAAGABAMBAAQMAAIALAQCAAEB@DFMCCAQLABIzIoNMCUABIICWyoQSAIEFcIQizwCCBETBQ
AAAAAFAAAAPBYDEkgJUJBAFxBNAAAQAABRAgQIJGTAAFAZstAeDJ9GRpgGD5gkQUwDIAiCMhINCE3rSDxSFEKAA.f wACHwAAAAA"
```

POST to https://pbs-eu-central.ay.delivery/cookie\_sync

#### "status": "ok", "bidder\_status": [

"bidder": "bliink",
"no\_cookie": true,
"usersync": {

"url%: "https://cookiesync.api.bliink.io/getuid/20pr=1&consent=CQTt-UAQHT-UAAHABBENBVFsAP\_gAEPgAAqILSNT\_G .bWlr-T73aftkeYxP9\_h77sQxBgbJE-4FzLvW\_JwXx2ESNAzatqIKmRIAUXBIQNLHJDURVCgaogVryDMaEyUOTNKJ6BkiBMRI2NYCFxvm4tjeQCY rr991c1mB-t7dr83dzyy4hHn3a5\_2S1WJCdAYetDfv82BKT-9IMd\_x8v4v4\_F7pE2-eS1n\_g6vpE09-YnM\_9B299\_bbffzPn\_ql\_-x/f\_n37v9 h77v\_\_\_\_BAAEw0KiCMsCAEILAwggQAKCsICKBAEAACQMEBACYMCNIGAC6wkQAgBQADBACAAEGAATAAAIAEIgAoAKBAABAIFAAGABAMBAAQMAATAL (CAAEB0DFMCCAQLABIZIONMCUABIICWyoQSAIEFcIQizwCCBETBQAAAAAFAAAAPABYDEkgJUJBAFxBNAAAQAABRAgQIJGTAAFAZstAeDJ9GRpgGD5gJ UwDIAiCMhINCE3rSDxSFEKAA.f\_wACHWAAAAASus\_privacy=Gurl=https%3A%2F%2Fpbs-eu-central.ay.delivery%2Fsetuid%3Fbidderf Dbbliink%26gdpr%3D1%26gdpr\_consent%3DCQTt-UAQTt-UAAHABBENBVFsAP\_gAEPgAAqILSNT\_6\_\_bWLr-T73aftkeYxP9\_h77sQxBgbJE-4F; .vW\_JWXx2ESNAzatqIKmRIAU3TBIQNLHJDURVCgaogVryDMaEyUOTNKJ6BkiBMRI2NYCFxvm4tjeQCY5vr991c1mB-t7dr83dzyy4Hhn3a5\_2S1WJ AYetDfv8ZBKT-9IMd\_x8v4v4\_F7PE2-eS1n\_p6vp6D9-YnM\_9B299\_bbffzPn\_ql\_-x/f\_n37v943N77v\_\_\_BAAEw6KiCMsCAQLABIZIONMCUABIICWyot AAE#ACQMEBACYMCNIGAC6wkQAgBQADBACAAEGAAIAAAAEGAAAABIFAAGABAMBAAQMAATALAQCAAEB8DFMCCAQLABIZIONMCUABIICWyot AAE#CQEEBQAAAAAFAAAAAPBYDEkgJUJBAFx8NAAAQAABRAgQIJGTAAFAZstAeDJ9GRpGD5gKQUwDIAiCMhINCE3rSDxSFEKAA.f\_wACHw AAA&25Gqpp%3D2%26fpgD1%201%26f%3D%24UID\*,

"type": "redirect"

"bidder": "pubmatic",
"no\_cookie": true,
"usersync": {

"url": "https://image8.pubmatic.com/Adserver/ImgSync?p=1597066sgdpr=16gdpr\_consent=CQTt-UAQTT-UAAHABBENBVFs gqAEPgAAqILSNT\_6\_bWlr-T73aftkeYxP9.h77sQx8gbJE-4FzLvW\_JwXx2E5NAzatqIKmRIAu3TBIQNLHJDURVCgaogVryDMaEyUoTNKJ6BkiB I2NYCFxvm4tjeQCY5vr991c1mB-t7dr83dzy4hHn3a5\_2S1WJCdAYetDfv82BKT-9IMd\_x8v4v4\_F7pE2-e5in\_pGvp609-YMM\_9B299\_bbffzP \_q1\_\_X\_f\_n37v943n77v\_\_\_BaAAEw0KiCMsCAEIlAwgQQAKCSICKBAEAACQMEBACYMCnIGAC6wQAgBQADBACAAEGAAIAAATAEIgAoAKBAABA AGABAMBAAQMAAIALAQCAAEB0DFMCCAQLABIZIONMCUABIICWy0QSAIEFcIQizwCCBETBQAAAAFAAAAPBYDEkgJUJBAFxBNAAAQAABRAQQIJGTAA ZstAeDJ9GRpGGD5gkQUwDIAiCMhINCE3r5DxSFEKAA.f\_wACHwAAAAASus\_privacy=6pu=https%3A%2F%2Fpbs=eu-central.ay.delivery% setuid%3Fbidder%3Dpubmatic%26gdpr%3D1%26gdpr\_consent%3DCQTrUAQAT-UAAHABBENBVFsAP\_gAEPgAAqILSNT\_6\_bWlr-T73aftke 9p\_h77sQxBgbJE-4FzLvW\_JwXx2E5NAzatqIKmRIAU3TBIQNLHJDURVCgaogVryDMaEyU0TNKJ6BkiBMRI2NYCFxvm4tjeQCY5vr991c1mB-t7dr dzyy4hHn3a5\_2SIJJCdAYetDfv82BKT-9IMd\_x8v4v4\_F7pE2-e5in\_pGvp609-YnM\_9B299\_bbffzPn\_q1\_-\_\_vf\_n37v943n77v\_\_BAAEw iCMsCAEILAwgQQAKCSICKBAEAACQMEBACYMCnIGAC6wkQAgBQADBACAAEGAAIAAATAEIgAoAKBAABAIFAAGBABMBAAQMAAIALAQCAAEB0DFMCCAQ BIZIONMCUABIICWy0QSAIEFcIQizwCCBETBQAAAAAAAPBV26kgJUJBAFxBMAAAQAABRAgQIJGTAAFAZstAeDJ9GRpG05gkQUwDIAiCMhINCE SDxSFEKAA.f\_wAAHAAAA&26gpp%3D%26gpp\_sid%3D%26f%3Di%26uid%3D%23PMUID",

"type": "redirect"

"bidder": "appnexus",
"no\_cookie": true,
"usersync": {

"url": "https://ib.adnxs.com/getuid?https%3A%2F%2Fpbs-eu-central.ay.delivery%2Fsetuid%3Fbidder%3Dappnexus%
6gdpr%3D1%26gdpr\_consent%3DCQT+UAQT+UAAHABBENBvFsAP\_gAEPgAAqILSNT\_6\_bwT-T73aftkeYxP9\_h77sqxBgbJE-4FzLvW\_JwXx2
SNAzatqIKmRIAu3TBIQNlHJDURVCgaogVryDMaEyUoTNKJ6BkiBMRI2NYCFxvm4tjeQCY5vr991c1mB-t7dr83dzyy4hHn3a5\_2S1WJCdAYetDfv8
BKT-9IMd\_x8v4v4\_F7pE2-e51n\_pGvp609-YMD\_98299\_bbff2Pn\_ql\_-X\_vf\_n37v943n77v\_\_BaAAEw0KiCMscAEIAwggQAKCSICKBAEAAC
MEBACYMCnIGAC6wkQAgBQADBACAAEGAAIAAAIAEIgAoAKBAABAIFAAGABAMBAAQMAAIALAQCAAEB0DFMCCAQLABIzIoNMCUABIICWyoQSAIEFcIQi
wcCBETBQAAAAAFAAAAPBYDEkgJJJBBAFxBNAAAQAABRAgQIJGTAAFAZstAeDJ9GRpgGD5gkQUwDIAiCMhINCE3rSDxSFEKAA.f\_wACHwAAAAA%26gp
%3D%26gpp\_sid%3D%26f%3D1%26uid%3D%24UID",
"type": "redirect"

Response to POST

```
"status": "ok",
"bidder_status": [
    {
        "bidder": "bliink",
        "no_cookie": true,
        "usersync": {
        "usersync": {
        "status": [
        "status": [
```

"url": "https://cookiesync.api.bliink.io/getuid?gdpr=1&consent=CQTt-UAQTt-UAAHABBENBvFsAP\_gAEPgAAqILSNT\_G\_ \_bWlr-T73aftkeYxP9\_h77sQxBgbJE-4FzLvW\_JwXx2E5NAzatqIKmRIAu3TBIQNlHJDURVCgaogVryDMaEyUoTNKJ6BkiBMRI2NYCFxvm4tjeQCY5 vr991c1mB-t7dr83dzyy4hHn3a5\_2S1WJCdAYetDfv8ZBKT-9IMd\_x8v4v4\_F7pE2-eS1n\_pGvp6D9-YnM\_9B299\_bbffzPn\_\_ql\_-\_X\_vf\_n37v94 3n77v\_\_\_BaAAEw0KiCMsCAEIlAwggQAKCsICKBAEAACQMEBACYMCnIGAC6wkQAgBQADBACAAEGAAIAAAIAEIgAoAKBAABAIFAAGABAMBAAQMAAIALA QCAAEB0DFMCCAQLABIzIoNMCUABIICWyoQSAIEFcIQizwCCBETBQAAAAAFAAAAPBYDEkgJUJBAFxBNAAAQAABRAgQIJGTAAFAZstAeDJ9GRpgGD5gk QUwDIAiCMhINCE3rSDxSFEKAA.f\_wACHwAAAAA&us\_privacy=&url=https%3A%2F%2Fpbs-eu-central.ay.delivery%2Fsetuid%3Fbidder% 3Dbliink%26gdpr%3D1%26gdpr\_consent%3DCQTt-UAQTt-UAAHABBENBvFsAP\_gAEPgAAqILSNT\_G\_\_bWlr-T73aftkeYxP9\_h77sQxBgbJE-4Fz LvW\_JwXx2E5NAzatqIKmRIAu3TBIQNlHJDURVCgaogVryDMaEyUoTNKJ6BkiBMRI2NYCFxvm4tjeQCY5vr991c1mB-t7dr83dzyy4hHn3a5\_2S1WJC dAYetDfv8ZBKT-9IMd\_x8v4v4\_F7pE2-eS1n\_pGvp6D9-YnM\_9B299\_bbffzPn\_\_ql\_-\_X\_vf\_n37v943n77v\_\_\_BaAAEw0KiCMsCAEIlAwggQAKCs ICKBAEAACQMEBACYMCnIGAC6wkQAgBQADBACAAEGAAIAAAIAEIgAoAKBAABAIFAAGABAMBAAQMAAIALAQCAAEB0DFMCCAQLABIzIoNMCUABIICWyoQ SAIEFcIQizwCCBETBQAAAAAFAAAAPBYDEkgJUJBAFxBNAAAQAABRAgQIJGTAAFAZstAeDJ9GRpgGD5gkQUwDIAiCMhINCE3rSDxSFEKAA.f\_wACHwA AAAA%26gpp%3D%26gpp\_sid%3D%26f%3Di%26uid%3D%24UID",

"type": "redirect"

#### "user": {

#### "ext": {

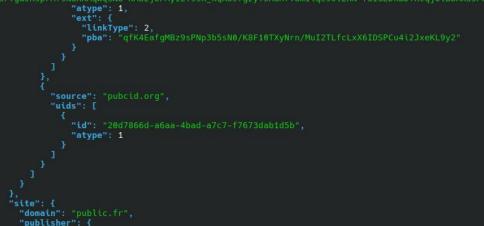
"consent": "CQTt-UAQTt-UAAHABBENBvFsAP\_gAEPgAAqILSNT\_G\_\_bWlr-T73aftkeYxP9\_h77sQxBgbJE-4FzLvW\_JwXx2E5NAzatqIk mRIAu3TBIQNlHJDURVCgaogVryDMaEyUoTNKJ6BkiBMRI2NYCFxvwfjeQCY5vr991c1mB-t7dr83dzyy4hHn3a5\_2S1WJcdAYetDfv8ZBKT-9IMd &8v4v4\_F7pE2-es1n\_pGvp6D9-YnM\_9B299\_bbffzPn\_ql\_-\_X\_vf\_n37v943n77v\_\_\_BAAAEw0KiCMsCAEIlAwggQAKCsICKBAEAACQMEBACYMCr IGAC6wkQAgBQADBACAAEGAAIAAAIAEIgAoAKBAABAIFAAGABAMBAAQMAAIALAQCAAEB0DFMCCAQLABIzIoNMCUABIICWyoQSAIEFcIQizwCCBETBQA AAAAFAAAAAPBYDEKqJUJBAFxBNAAAQAABRaqQIJGTAAFAZstAeDJ9GRqgGD5qQUbVIAiCMhINCCE3rSDxSFEKAA.f wACHwAAAAA",

#### "ConsentedProvidersSettings": {

"consented\_providers": "2~89.2292.1584.1964.3188.3272.3217.1188.1356.1678.1825.1866.2583.2621.2908.2983.30 3.3126.3145.1845.11531.12831.3182.2359.1558.70.2677.461.375.1067.2986.2109.2488.1699.1712.820.2900.2008.3225.568. 0.31.311.587.1053.1040.143.486.904.144.985.147.371.938.149.43.159.55.122.407.211.83.322.93.436.1403.108.445.576.97 0.981.2844.1092.1097.1732.1967.2425.2656.2670.1099.2316.2526.2629.1832.2596.1143.2140.1152.1166.1290.1301.2003.209 0.2124.2370.2572.2713.1205.1268.1750.2166.2225.2510.2542.2532.1186.1284.2130.2133.2403.1782.2035.2440.1345.2253.14 0.1516.1525.2052.2575.2768.2787.2564.1878.1969.2282.2605.2687.2805.2813.2072.2107.1677.1682.1697.1786.1810.1843.1 0.68.2614.1842.1929.2484.2535.1870.1963.2115.2645.2064.3250.2068.2074.2493.2642.2377.2577.2821.2609.2517.2604.2608. 0.658.2677.2792.2801.2817.2839.2849.2852.2854.2862.2867.2867.2875.2876.2880.2884.3066.2886.2884.2687.2929.3172 3185.2889.2893.2898.2901.2916.2931.2963.3016.3053.3106.3130.2922.2997.2923.2927.2947.2949.2941.2961.2973.2980.301 0.2985.2994.3008.3117.3190.3038.3078.3059.3073.3074.3112.3136.3099.3119.3167.3128.3154.3155.3194.3211.2822.2501.32 6.3234.3253.124.574.1215.1230.2177.3231.3244.3257.228.2877.13632.13731.4131.3324.1421.2681.3028.3270.3290.3296.33 0.3307.3314.3315.3330.3331.4731.6031.8931.10231.61.2222.11031.14237.16831.1987.3150.3009.3292.23031.10631.1423.24

#### }, "eids": [ { "source": "id5-sync.com", "uids": [ "uids": [

**"id":** "ID5\*v4oR25KMw279l5j4-rCvdNKFXakNZpM-Q-2Ikwc7gcgqkORECmHR\_NpRm9fClw1VLGPoIOEOoF5\_1Tl77wxSXyqj9 3rTgaJKsprMf9NdXHMqWQSN8-KM82jbPMyILT99K\_kQAOcfgzyY5RaHfY8mIiqe90tZHN-fdIGZDkBDfHcqj0lBbXA35PXaro5oNkEj",



User data

```
"device": {
 "w": 344,
 "h": 708,
 "dnt": 0,
 "language": "en",
 "sua": {
    "source": 1,
   "platform": {
     "brand": "Android"
    "browsers": [
      1
       "version": [
       "brand": "Chromium",
       "version": [
        1
    "mobile": 1
 "prebid": {
    "auctiontimestamp": 1751126156316,
    "targeting": {
     "includewinners": true,
     "includebidderkeys": false
   "rnd": 1,
   "channel": {
     "version": "v9.6.0"
  "tmaxmax": 3000
"test": 0,
"tmax": 2250
```

Browser data

```
"gpid": "/23065157615/public.fr/mobile_post_inread",
"data": {
 "divId": "inread__ayManagerEnv__1_47c9be33",
  "placement": "inread",
  "adg_rtd": {
    "adunit position": ""
"tid": "36f11058-4dc6-4b28-9390-982ed5c9cbaf",
"prebid": {
  "bidder": {
    "pubmatic": {
      "publisherId": "165390"
    "onetag": {
      "pubId": "8d0141a08f68259"
    "appnexus": {
      "placementId": 33008212
    "connectad": {
      "siteId": 1113278,
      "networkId": 423
    "richaudience": {
      "pid": "rCMPJEWC3f",
      "supplyType": "site"
    "smilewanted": {
      "zoneId": "public.fr hb display"
    "bliink": {
      "tagId": "55"
    "adyoulike": {
      "placement": "006c3eed1059eb9eeb0e47c5cbf84b78"
    "triplelift": {
      "inventoryCode": "HeroesMedia_M_Inread_1_300x250_pb
  "adunitcode": "inread__ayManagerEnv__1_47c9be33"
```



POST -> https://pbs-eu-central.ay.delivery/openrtb2/auction

Response to bid

"bidid": "ececac14-f47d-431a-829d-20ea84f581ed"

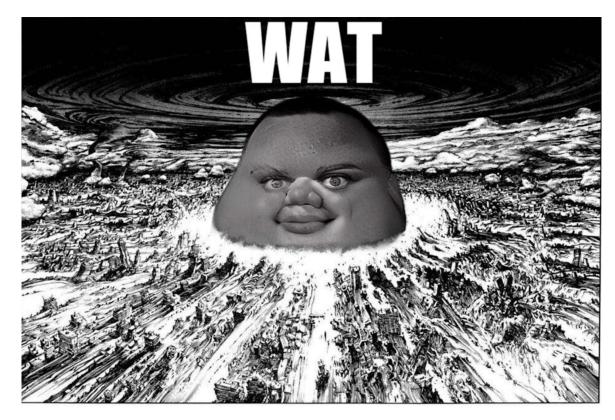
VQk-YUO40wqI7VBXY\_YVX4MJd82GdgH6MZLi3NavddNG8EFkJJ7ISAX5u9Z0oZ7É3E5GMYtFgkJi5gbsAITtlUVfHBKIWTMpUEYiIK-hgwSfBWxwB HP-gFZv7BrXr3FvRrq\_V-GIno7IfONUD3qAqbb\_zYZKqH6Cit0YIufAGAnnBrmmh\_5LqoqI\_C9YWUBKdrmtsy2t\_8CIYVFP\_zIyeC4HsTmqn6aTlwy

"imp": "https://pbs-eu-central.ay.delivery/event?t=imp&b=ececac14-f47d-431a-829d-20ea84f581ed&a=or \_KKBTSgXqyQiSqba5T&bidder=richaudience&ts=1751126156480"

```
"ext": {
  "warnings": {
    "general": [
        "code": 10002,
        "message": "debug turned off for account"
  "responsetimemillis": {
    "adyoulike": 36,
    "appnexus": 20,
    "connectad": 168,
    "onetag": 73,
    "pubmatic": 27,
    "richaudience": 319,
    "smilewanted": 70,
    "triplelift": 7
  },
  "tmaxrequest": 2250,
  "prebid": {
    "auctiontimestamp": 1751126156480
```

# WAT

- Crypto?
- Crypto scam?
- Al slop?
- Al slop crypto scam?





# The Dollar. Upgraded.

Digital dollar stablecoins that are accepted both on-chain and in the real world.





# It's still the US Dollar, but for a new era

## https://lookyloo.circl.lu/tree/5ddd3718-6d85-470c-b9f0-a9ef43a41dad

File Information

Filename	Size	Mimetype	Hash	Download
93564157-2e8e-4ce7-81df- b264dbee9b00	2.9КіВ	image/webp	597dd1ea582622aa1e30366c988851df60ab9b 1372c55485031205x656baa44ab0b458614d e66s5c261fe22dd13f948d724a203079d3f0ef3 f3a56c47120d	
Submit to Pandora				
10 🗸 entries per page				Search:
Capture Time	Capture Title		Landing page	
2025-07-01 05:50:20 GMT+0200 (Central European Summer Time)	ION Bridge The capture contains this value in <u>Show</u>	n <b>1</b> nodes.	https://bridgeice.lol/	
2025-07-01 05:50:14 GMT+0200 (Central European Summer Time)	ION Bridge The capture contains this value in <u>Show</u>	n <b>1</b> nodes.	https://bridgeice.lol/	
2025-06-30 05:19:26 GMT+0200 (Central European Summer Time)	PEHE Kingdom - Discover \$PEHE The capture contains this value in <u>Show</u>		https://www.pehekingdom.lol/	
2025-06-30 05:19:21 GMT+0200 (Central European Summer Time)	PEHE Kingdom - Discover \$PEHE The capture contains this value in <u>Show</u>		https://www.pehekingdom.lol/	
2025-06-30 04:57:29 GMT+0200 (Central European Summer Time)	Earn and Borrow Crypto   World The capture contains this value in <u>Show</u>		https://worldlebirtyfinancial.lol/	

https://lookyloo.circl.lu/body\_hashes/597dd1ea582622aa1e30366c988851df60ab9b1372c5 5a4850312f05a656baa44ab0b458614de66a5c261ffe220d13f948d724a203079d3f0ef3f3a5 6c47120d?from\_popup=True



https://lookyloo.circl.lu/tree/e4b35086-cadd-4e3c-903f-9d7993a08a82 https://lookyloo.circl.lu/tree/9286ffba-bfd0-4175-809c-378ba7cb01f5

https://lookyloo.circl.lu/tree/473107ed-085e-410b-8a77-ed285b6a5f36 - Swiftcoin ?!

### https://trojan-trading.pages.dev/

### https://lookyloo.circl.lu/tree/9d968095-3eaa-4b97-94d0-ef166a96ffbe

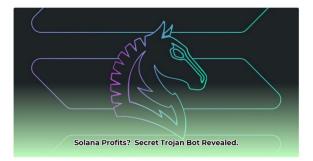
#### Trojan Trading &

#### Home Posts Trojan Trading Bot: Solana Profits Now

February 7, 2025 · 5 min · 985 words · Ricardo Sharpe

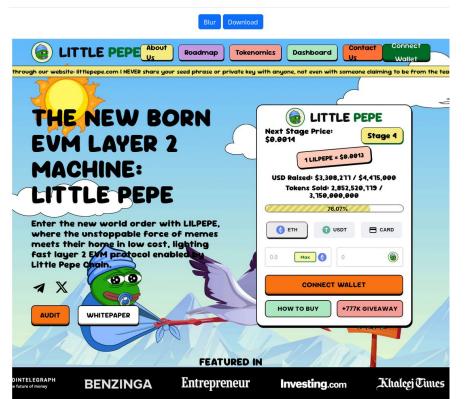
#### ▼ Table of Contents

- Is Trojan the Key to Solana Success? A Comprehensive Review
- Trojan's Strengths: Speed, Simplicity, and Solana's Dynamic Ecosystem
- Trojan's Weaknesses: A Realistic Perspective
- User Feedback: A Balanced Viewpoint
- Understanding the Risks: Informed Decision-Making
- The Verdict: A Powerful Tool, But Not Without Caveats
- · How to Minimize Transaction Failures with the Trojan Bot
- Trojan's Functionality: Strengths and Weaknesses
- · Minimizing Transaction Failures: A Step-by-Step Guide
- Risk Assessment and Mitigation
- Conclusion: Informed Trading Equals Enhanced Success



## Is Trojan the Key to Solana Success? A Comprehensive Review

Solana's high-speed, high-risk environment demands sophisticated tools for traders. The Trojan trading bot promises to deliver, boasting a staggering \$1.9 billion in lifetime trading volume and over 145,000 users. But does it live up to the hype? This review explores Trojan's strengths, weaknesses, and the crucial considerations for maximizing its potential, whether you're a seasoned trader or just starting out.



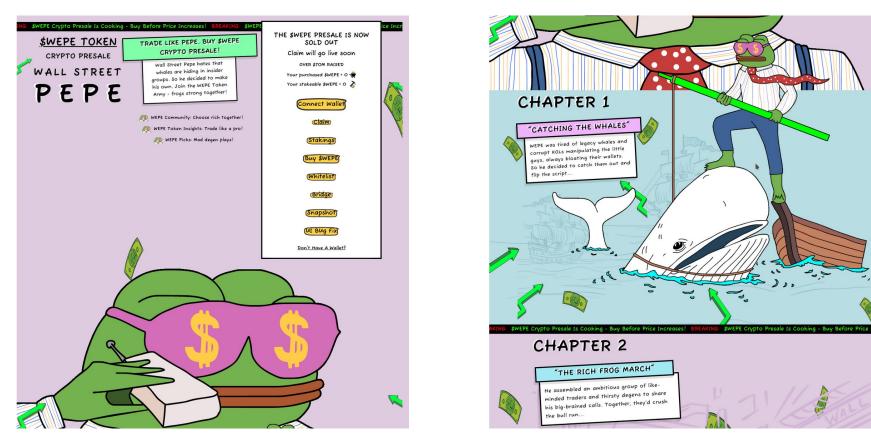
## littlepepe.com

## https://lookyloo.circl.lu/tree/c8f43dfe-ea18-47bd-8e5c-a0feadeae4d3



## www.lilxpepe.lol

https://lookyloo.circl.lu/tree/38aab6c8-0fd3-48f9-a7c3-6cbe0286c4b0



### https://lookyloo.circl.lu/tree/76daa149-056a-4b80-bb94-778320117a33

CONNECT WALLET Home Chapters 🗸 Mint Your NFT FAQS Staking Claim WHITEPAPER ENV AUDIT \$WEPE TOKEN CHOOSE RICH. BUY \$WEPE! Wall Street Pepe hates that WALL STREET cabals, whales, and KOLs control BUY SWEPE TO JOIN THE WEPE the markets. So he created his ARMY! own movement. Join the WEPE PEPE Army and fight back together! YOUR \$WEPE = O 1 \$WEPE = \$0.0000421 \_ THE \$WEPE COMMUNITY OPERATES AS ONE. THE 🚺 ЕТН 🛐 USDT CARD MOVEMENT IS GROWING. THE ARMY IS ASSEMBLED. THE FROGS ARE GETTING READY TO PQUNCE! Receive \$WEPE Pay with ETH Max JOIN THE WEPE ARMY! 0 Connect Wallet

\$WEPE token is trading on Uniswap! • \$WEPE token is trading on Uniswap! • \$WEPE token is trading on Uniswap! • \$WEPE token

Don't have a wallet?

A X & & Ø

### https://lookyloo.circl.lu/tree/089c6909-57f8-4d89-a96c-b8f06b93922d

## Demo interfaces

- https://lookyloo.circl.lu
- <u>https://pandora.circl.lu/</u>
- <u>https://phishtankapi.circl.lu/</u>
- <u>https://monitor.circl.lu/</u>

# Contact

- raphael@yoyodyne-it.eu
- info@circl.lu
- Twitter: @rafi0t
- Mastodon: @rafi0t@social.yoyodyne-it.eu
- Github: <u>https://github.com/rafiot</u>