

From Zero to Hero



> **GETTING
STARTED IN
CYBERSECURITY**

Learn Cybersecurity on your own and beyond





AGENDA

Topics Covered

0x1-What is Cybersecurity.

0x2-Cybersecurity Roadmap

0x3-CTF as a learning tool

0x4-Tips and tricks

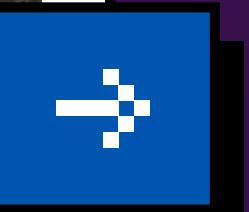
Aldwin Tapican

Whoami:

- 3rd Year BSCS Student in NEU
- Security Researcher
- Active CTF
- Backend Developer: Django and bootstrap 5
- CBI CICS Officer and ACSS Officer



aj-tap.github.io



Cybersecurity

Practice of protecting computer systems, networks, and sensitive data from theft, damage, or unauthorized access.



Offensive security

- Hack things before threat actors do
- Simulate real-world cyberattacks and attempt to breach the organization's defenses in order to identify vulnerabilities and weaknesses.

Defensive Security

- Improve security gaps before adversaries find them.
- Monitoring network traffic for suspicious activity, and implementing firewalls and other security measures to prevent unauthorized access.



improve the organization's overall security posture

WHY CYBERSECURITY?

Among the key findings of the report, it notes that demand for cybersecurity talent is high and continuing to grow, with a projected global workforce gap of 3.12 million professionals

--- International Information System Security Certification Consortium (ISC)²



WRAL TechWire NEWS START

- There still aren't enough cybersecurity workers to meet demand**

A key indicator is the ratio of currently employed cybersecurity workers to new openings, which gives an indication of how big the worker shortfall is. The supply-demand ratio is currently 68 workers per 100 job openings, edging up from the previous period's ratio of 65 workers per 100 openings. Based on these numbers, we need nearly 530,000 more cybersecurity workers in the US in order to close current supply gaps.

<https://cloud.connect.isc2.org/career-pursuers-report>

https://www.nist.gov/system/files/documents/2022/07/06/NICE%20FactSheet_Workforce%20Demand_Final_20211202.pdf

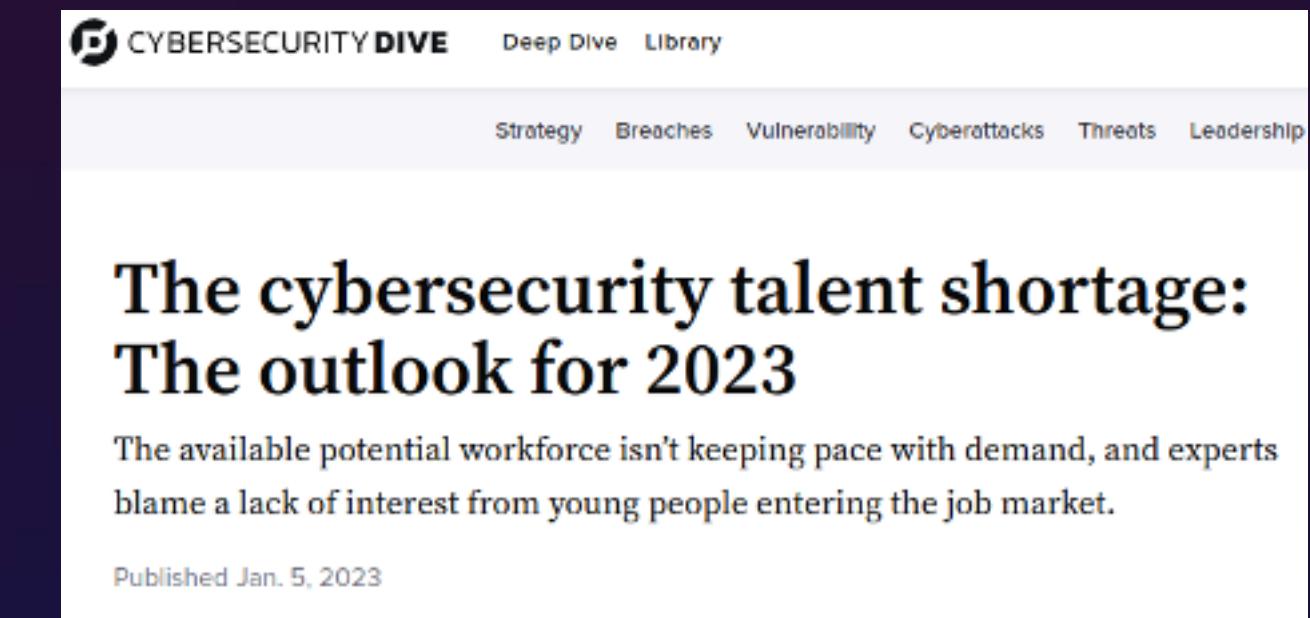


DARKReading The Edge DR Tech Sections Events

Remote Workforce | 4 MIN READ NEWS

Cybersecurity Jobs Remain Secure Despite Recession Fears

Only 10% of corporate executives expect to lay off members of cybersecurity teams in 2023, much lower than other areas, as companies protect hard-to-find skill sets.



CYBERSECURITY DIVE Deep Dive Library

Strategy Breaches Vulnerability Cyberattacks Threats Leadership

The cybersecurity talent shortage: The outlook for 2023

The available potential workforce isn't keeping pace with demand, and experts blame a lack of interest from young people entering the job market.

Published Jan. 5, 2023

Over the last three years, **87%** of organizations reported actively seeking to meet diversity goals when hiring new graduates

Source: Fortinet 2022 Cybersecurity Skills Gap Global Research Report

Careers in Cyber



Penetration Tester



Red Teamer



Incident Responder



Digital Forensics Examiner



Malware Analyst



Security Analyst



Security Engineer

Here are some reasons to consider a career in cybersecurity:

- High Salary - Security jobs have lucrative starting salaries.
- Excitement - Work in this field can involve legally hacking systems or defending against cyberattacks, which is thrilling and challenging.
- High Demand - There is an enormous gap of over 3.5 million unfilled cyber positions globally.

RECENT THREATS 2023

DARKReading

Application Security | 1 MIN READ 

AI-Created YouTube Videos Spread Around Malware

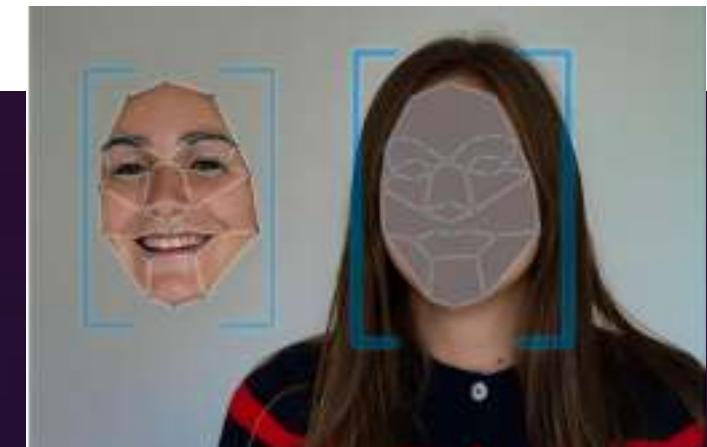
AI-generated videos pose as tutorials on how to get cracked versions of Photoshop, Premiere Pro, and more.

videos pretending to be step-by-step tutorials on how to access programs

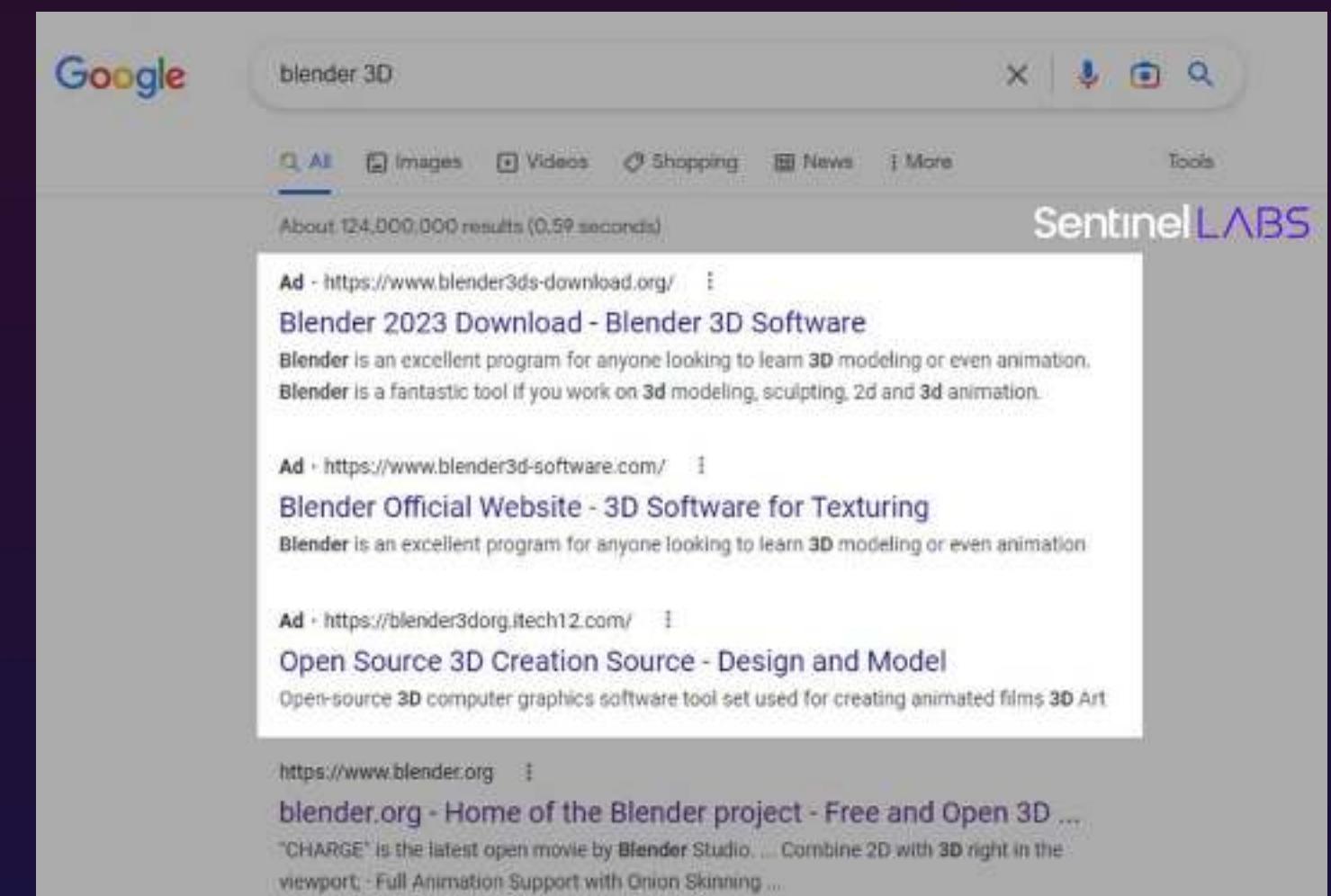
DARKReading

Infostealer Malware Market Booms, as MFA Fatigue Sets In

The successful combo of stolen credentials and social engineering to breach networks is increasing demand for infostealers on the Dark Web.

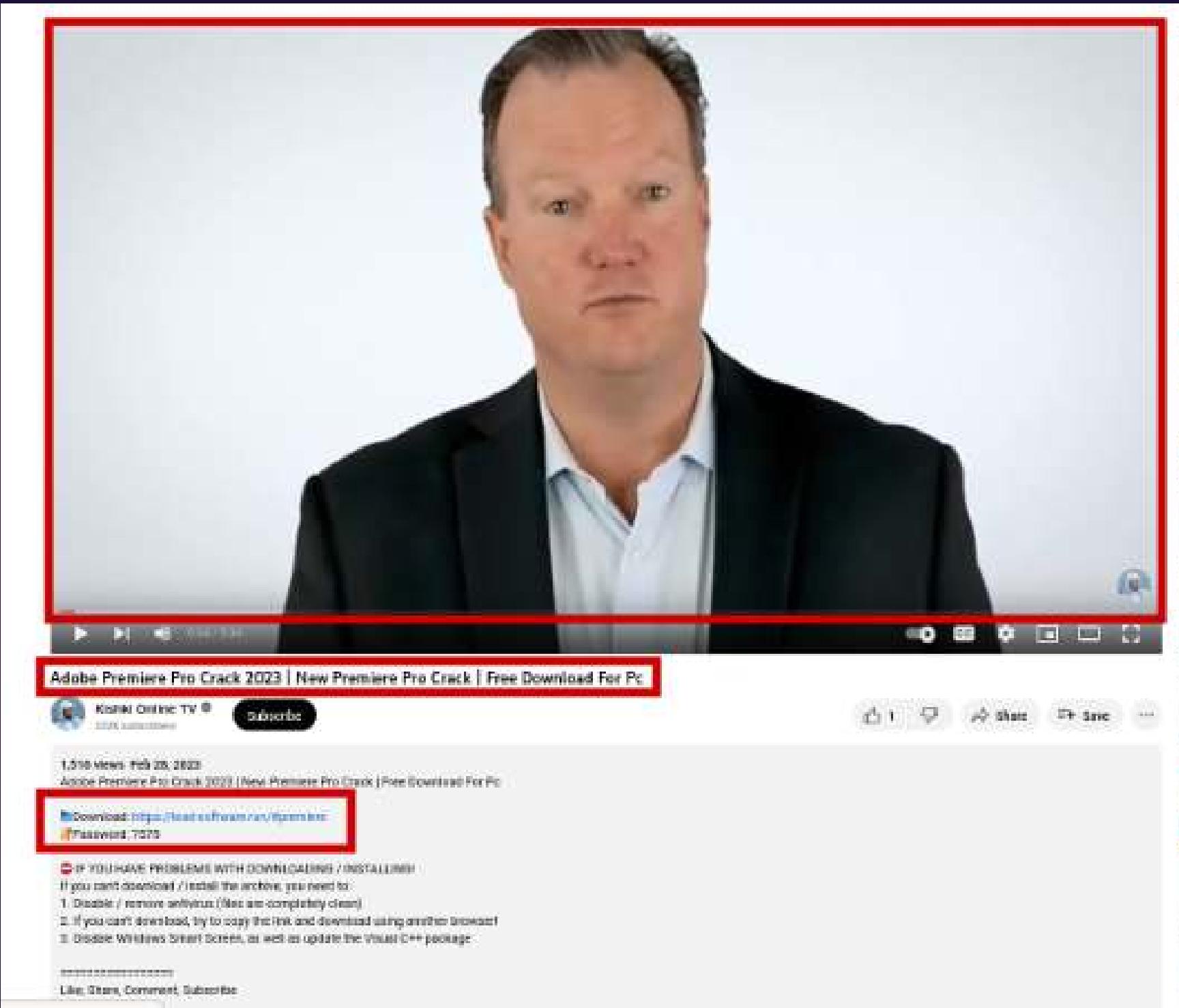


Malicious Facebook ads pretending legitimate

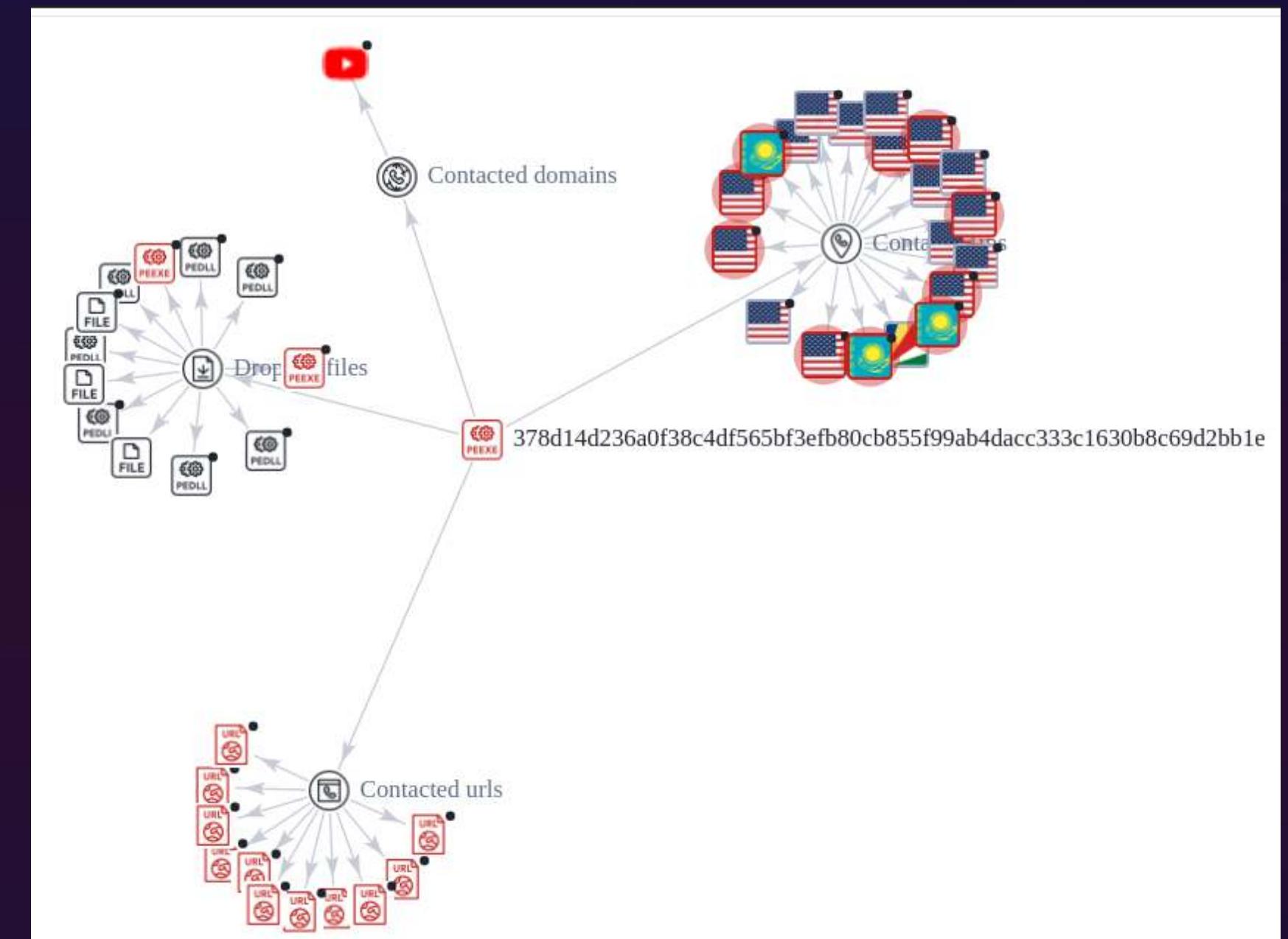


Malicious Google Search results (Sentinel Labs)

<https://www.darkreading.com/application-security/ai-creating-compelling-youtube-videos-loaded-with-malware->
<https://www.darkreading.com/threat-intelligence/infostealer-malware-market-booms-mfa-fatigue>
<https://www.sentinelone.com/blog/breaking-down-the-seo-poisoning-attack-how-attackers-are-hijacking-search-results/>
<https://blog.sekoia.io/stealc-a-copycat-of-vidar-and-raccoon-infostealers-gaining-in-popularity-part-1/>



AI-Generated YouTube videos contain links to information-stealing malware such as Vidar, RedLine, and Raccoon.

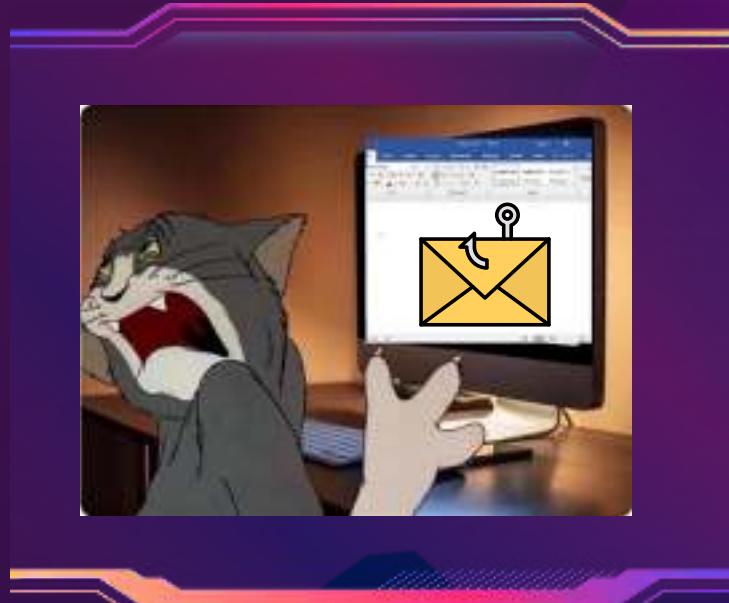


VT-Graph shows the contacted domains that have been interacted with by the malware and also malicious files that have been downloaded.

DEMO TIME

Typical Malware infection sequence

Victim's perspective



Threat actor's perspective



Information Stealer Malware

Raccoon Stealer

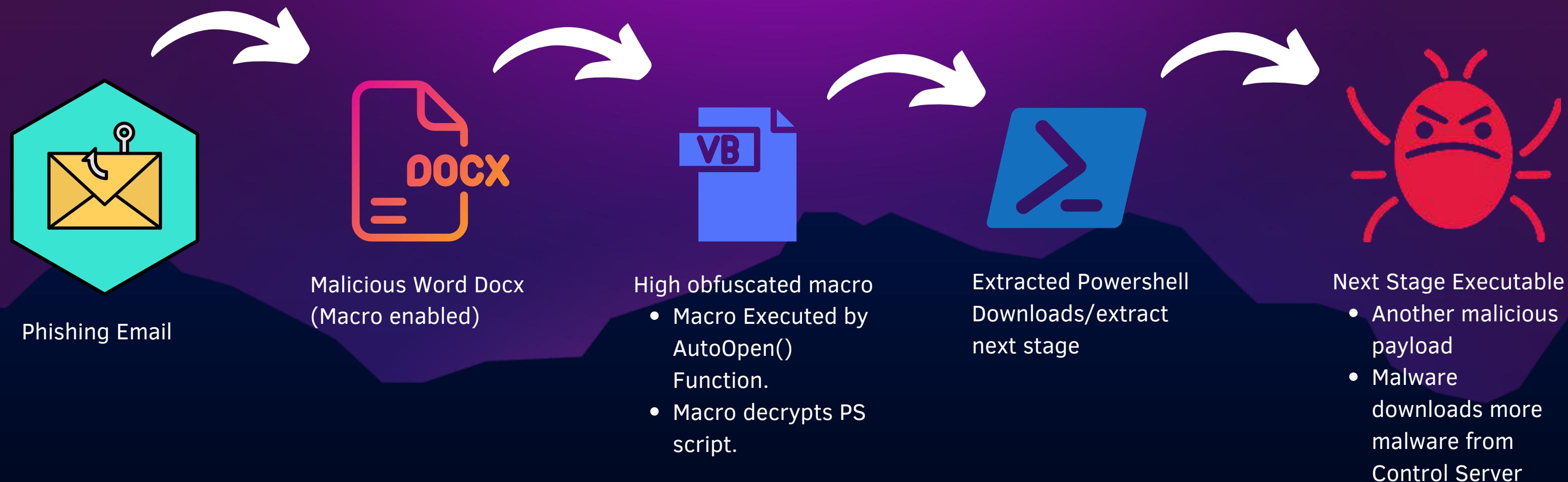


Redline Stealer



RECAP DEMO TIME

Infection chain scenario Malicious Word Document Pathway



RECAP DEMO TIME



Blue team

Performs :
Malware Triage and gather
Indicator of Compromise (IOCs)

Tools used:

- Windows 10 FlareVM
 - Wireshark
 - procexp
 - Sublimetext



Red Team

Performs :
Simulate the attack
Crafted a Malicious Document
and malicious payload.
Setup a Meterpreter listener.

Tools used:

- Parrot OS
 - Metasploit Framework.
 - MSF venom.
 - Python HTTP.
 - Powershell scripts.

3 Phase Cybersecurity Roadmap



Year One: The Fundamentals

Windows/Linux

- Install, Configure, Adminster
- Windows Internals
- Secure and Harden
 - CIS Benchmarks

Virtualization

- Basics of Virtualization
- Virtualbox/Vmware/QEMU

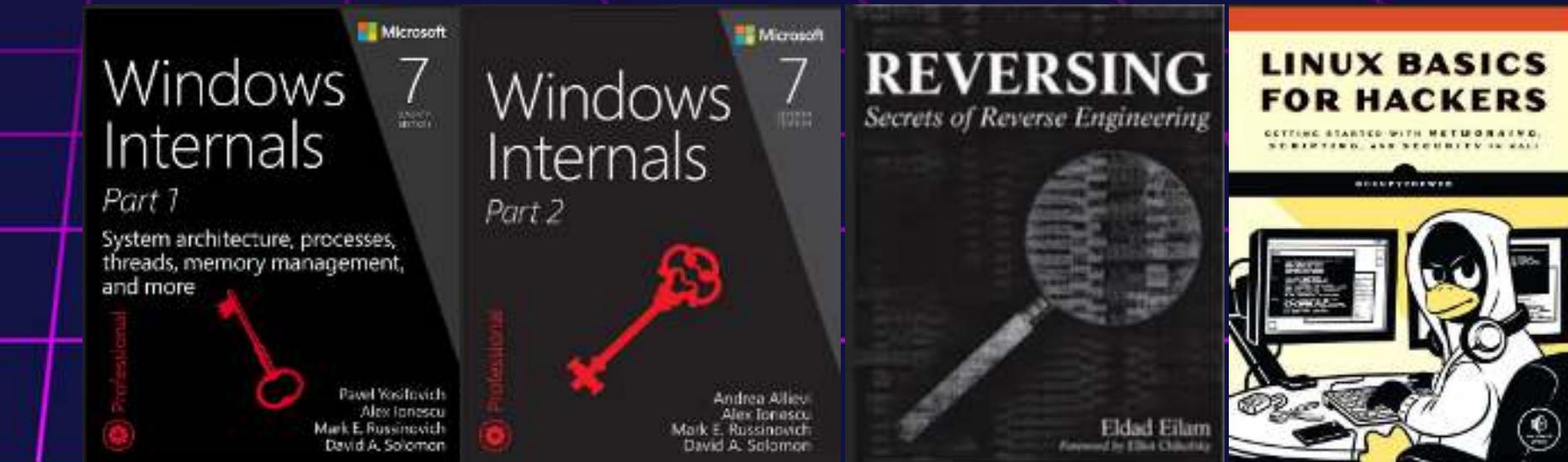


Operating Systems

Links:

- <https://tryhackme.com/room/linuxfundamentalspart1>
- <https://tryhackme.com/room/windowsfundamentals1xbx>
- <https://www.ibm.com/topics/virtual-machines>
- <https://linuxjourney.com/>
- <https://www.debian.org/doc/manuals/debian-handbook/index.en.html>
- <https://docs.microsoft.com/en-us/sysinternals/>
- <https://www.cisecurity.org/cis-benchmarks>

Books:



Year One: The Fundamentals

OSI/TCP Model

- Understand the layers make up the model.
- Common protocols like HTTP, SSH, FTP, SMB, SMTP etc.

Web Development

- HTML, CSS, Javascript
- Web stacks: LAMP, MERN, Django, ASP.NET, etc.

CSS

HTML



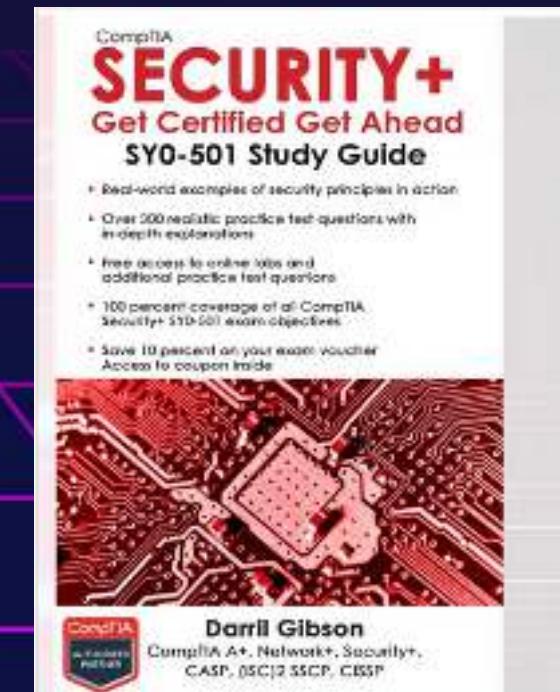
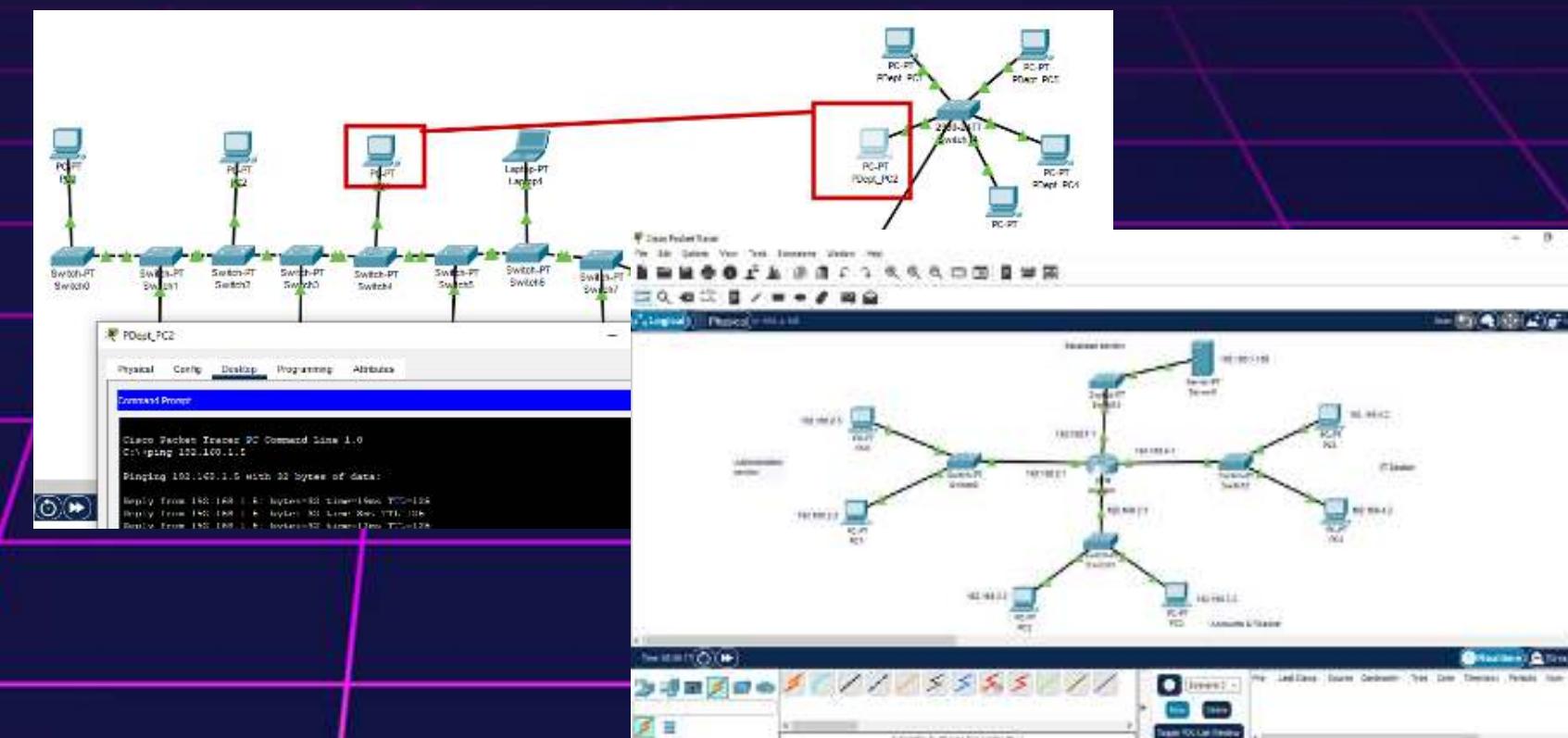
.js



Networking and Web Development

Links:

- <https://www.softwaretestinghelp.com/computer-networking-basics/>
- <https://www.guru99.com/data-communication-computer-network-tutorial.html>
- <https://www.netacad.com/courses/packet-tracer>
- <https://skillsforall.com/course/exploring-networking-cisco-packet-tracer>
- <https://www.netacad.com/courses/networking>
- <https://www.freecodecamp.org/>



Year One: The Fundamentals

Programming skills and Knowledge

- Powershell/bash scripts
 - Automate your daily tasks
- Start Simple with Python
- Go
- Javascript
- C++
- Develops intuition

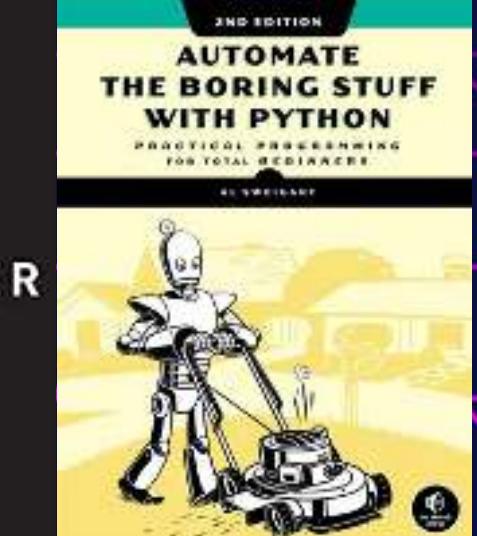
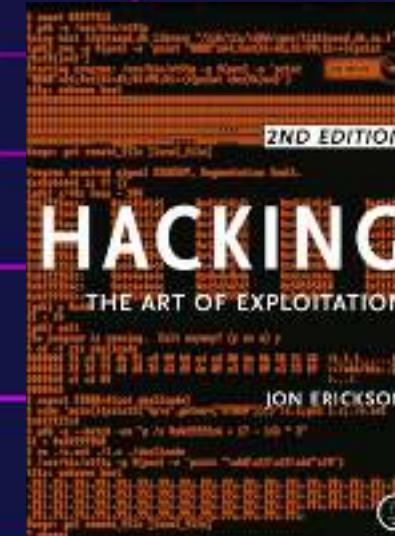


Programming languages

Links:

- <https://learn-bash.org/>
- <https://www.learnpython.org/>
- <https://www.learn-c.org/>
- <https://www.learn-cpp.org/>
- <https://nodejs.dev/en/learn/>
- <https://dev.java/learn/>
- <https://learn.microsoft.com/en-us/training/modules/introduction-to-powershell/>

Books:



Year Two: Cybersecurity Concepts

Security Concepts

- Information Security Terminologies
- CIA Triad Model
- Attacks, threats, vulnerabilities, risk

Security Standards

- National Information Security Technology (NIST) Standard Specification
 - RMF
 - Cybersecurity Framework
- CIS (Center for Internet Security)



Security Fundamentals

Links:

- <https://csrc.nist.gov/glossary>
- <https://www.nist.gov/cyberframework>
- <https://www.nccoe.nist.gov/publication/1800-25/VolA/index.html>
- <https://www.cisecurity.org>
- <https://owasp.org/Top10/>



Year Two: Cybersecurity Concepts

Pentesting Fundamentals

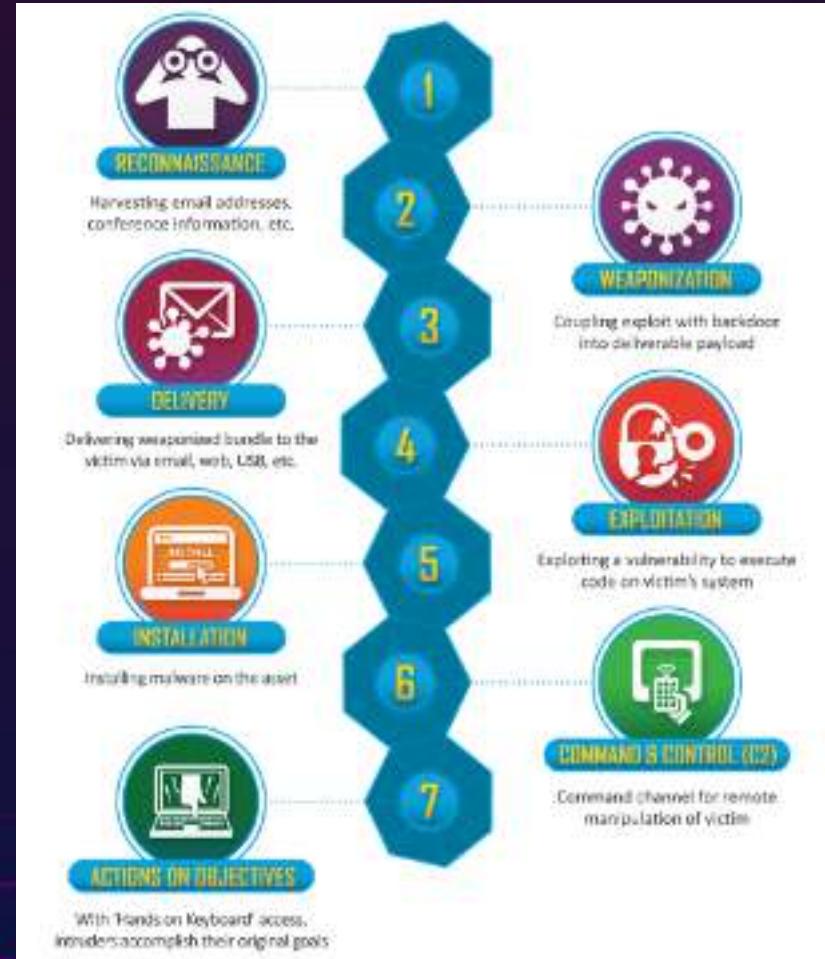
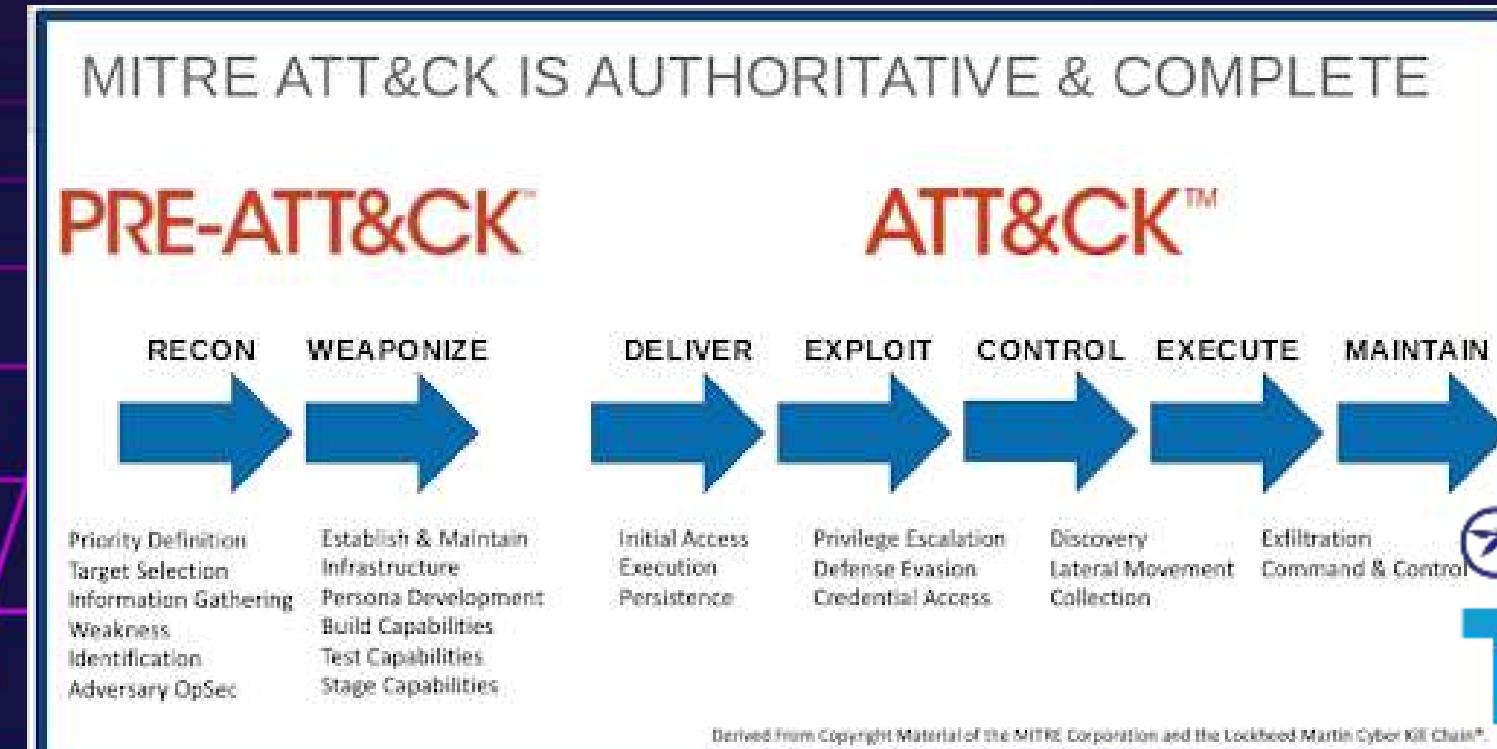
- PTES
- MITRE ATTACK
- Cyber Kill Chain
- OWASP Top 10
- OWASP Security Testing Guide
- Analyze open source reports pentest
- Understand Common Security suite and tools.



Frameworks/Methodology

Links:

- http://www.pentest-standard.org/index.php/Main_Page
- <https://attack.mitre.org/>
- <https://www.lockheedmartin.com/en-us/capabilities/cyber/cyber-kill-chain.html>
- <https://www.unifiedkillchain.com/>
- <https://nvlpubs.nist.gov/nistpubs/specialpublications/nist.sp.800-61r2.pdf>
- <https://owasp.org/www-project-top-ten/>
- <https://github.com/Sector443/awesome-list-of-public-pentesting-reports>



Year three: Getting hands dirty

Attack & Defend

- Approach your learning with directness.
 - Gain an understanding of how adversaries operate and how to detect them.
(Adversary Simulation)
 - Learn how Malware Operates and Types
 - Setup vulnerable server and attack it.
- CTFs
 - Participate, Identify your weak spots and improve!



Autodidact learning + Practice

Links:

- <https://book.hacktricks.xyz/welcome/readme>
- <https://portswigger.net/web-security>
- <https://github.com/digininja/DVWA>
- <https://www.vulnhub.com/>
- <https://github.com/ashemery/exploitation-course>
- <https://github.com/redcanaryco/atomic-red-team>

Practices on platforms:



Year four: Career hunt



Connect with professionals in the industry and submit a job application.

- LinkedIn, JobStreet, Facebook groups, university career fairs, webinars, and conferences.
- Volunteer works in Org
- Create a personal project, publish writeups, showcase your talent.
- Create a meaningful connection.
 - 50 meaningful > 1000 connections in linkedin
- Softskills Don't forget it ;)

Platforms:



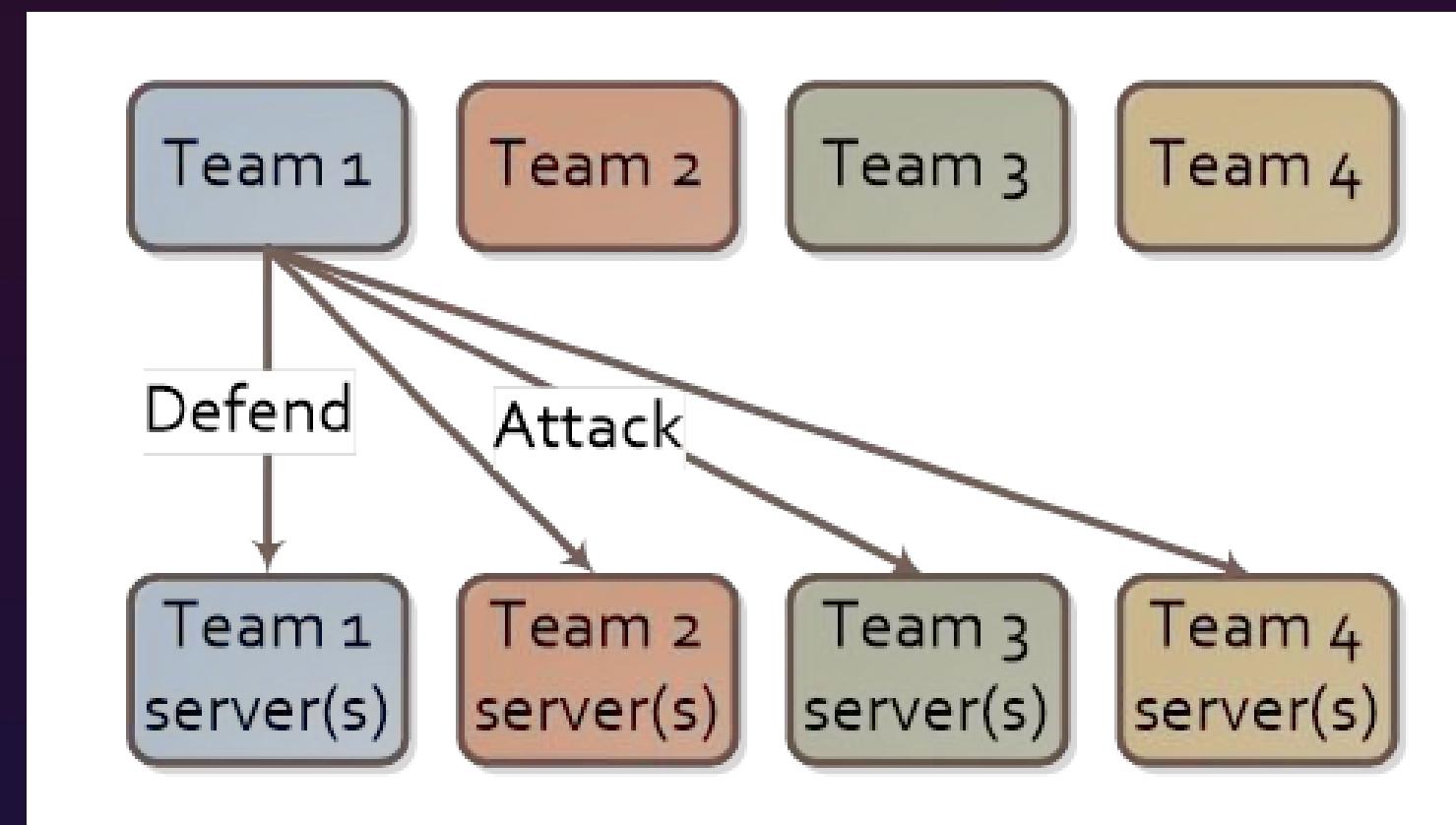
CTF: How the Best Hackers Learn Their Craft

Capture The Flag 101

Jeopardy Style

Web	Crypto	Forensics	Reverse	Misc	Pwn
1	165	100	50	50	50
150	150	150	100	100	150
204	150	150	150	165	200
203	200	200	200	150	250
206	257	200	300	200	323
318	334	250	300	300	440
325	400	347	400		
	430		350		

Attack-Defense



Typical Jeopardy CTF Page

Cyber Apocalypse 2023 - ...

Challenges Scoreboard

 Integer_OverFlow 864TH RANK 5125 POINTS 18/74 CHALLENGES 18/74 FLAGS

Search challenges by name or category

Submit flag & press enter

Warmup (UNSOLVED) 6 REVERSING CHALLENGES

	POINTS	DIFFICULTY	ASSIGNEE
Cave System	300	easy	
Alien Subsaur	325	medium	
Gimmick DSP	350	medium	
Vessel Cartographer	375	hard	
Somewhat Linear	325	hard	
Analogue Signal Processi...	425	insane	

Reversing (SOLVED) 4 REVERSING CHALLENGES

ML

Misc

Show More

Gamified learning



REPLY
<CHALLENGES>

Discover Challenges Challenge Originals Referral program

Cyber Security Challenge About Learning Training Faq Rules Your Challenge Page

CODING	WEB	BINARY	CRYPTO	MISCELLANEOUS
Travelling around the wor(l)ds 100 pts Completed on 10/14/2022 @ 10:53 PM with 4 tries VIEW	Dungeons & Breakfast 100 pts VIEW	mleml 100 pts VIEW	Non-Fungible Rune 100 pts VIEW	Seek and ye shall find 100 pts VIEW
aMAZEing portals 200 pts Completed on 10/15/2022 @ 1:36 AM with just one try! VIEW	EmoGigi 200 pts VIEW	Link the Jump 200 pts VIEW	Don't forget the best Bits 200 pts VIEW	hIP hIP hooray 200 pts VIEW
sudo -r fog 300 pts VIEW	You sock 300 pts VIEW	Pluto is a (un)planet 300 pts VIEW	Be blob a lula 300 pts VIEW	Let the logo play 300 pts VIEW
Four steps to the top 400 pts VIEW	Berry There 400 pts VIEW	Portal communication system™ I 400 pts VIEW	It worked yesterday 400 pts VIEW	Signals from the multiverse 400 pts VIEW
boh.lol 500 pts VIEW	O' fish 500 pts VIEW	Portal communication system™ II 500 pts VIEW	TouringZ S.p.A. 500 pts VIEW	Broken Adventure Time 500 pts VIEW

1 WreckTheLine SEE THE SCORES 5.768 pts on 10/15/2022 7:26 PM

2 Tower of Hanoi SEE THE SCORES 5.348 pts on 10/15/2022 7:00 PM

3 ДГП КРУ SEE THE SCORES 4.692 pts on 10/15/2022 2:13 PM

4 fibonhack SEE THE SCORES 4.158 pts on 10/15/2022 6:04 PM

5 Srdnlen SEE THE SCORES 3.564 pts on 10/15/2022 5:18 PM

Showing 1 - 5 of 3723 >

Last update on 10/20/2022 10:11 AM

Show all

SEE MORE STATS

my team: For the fun :D



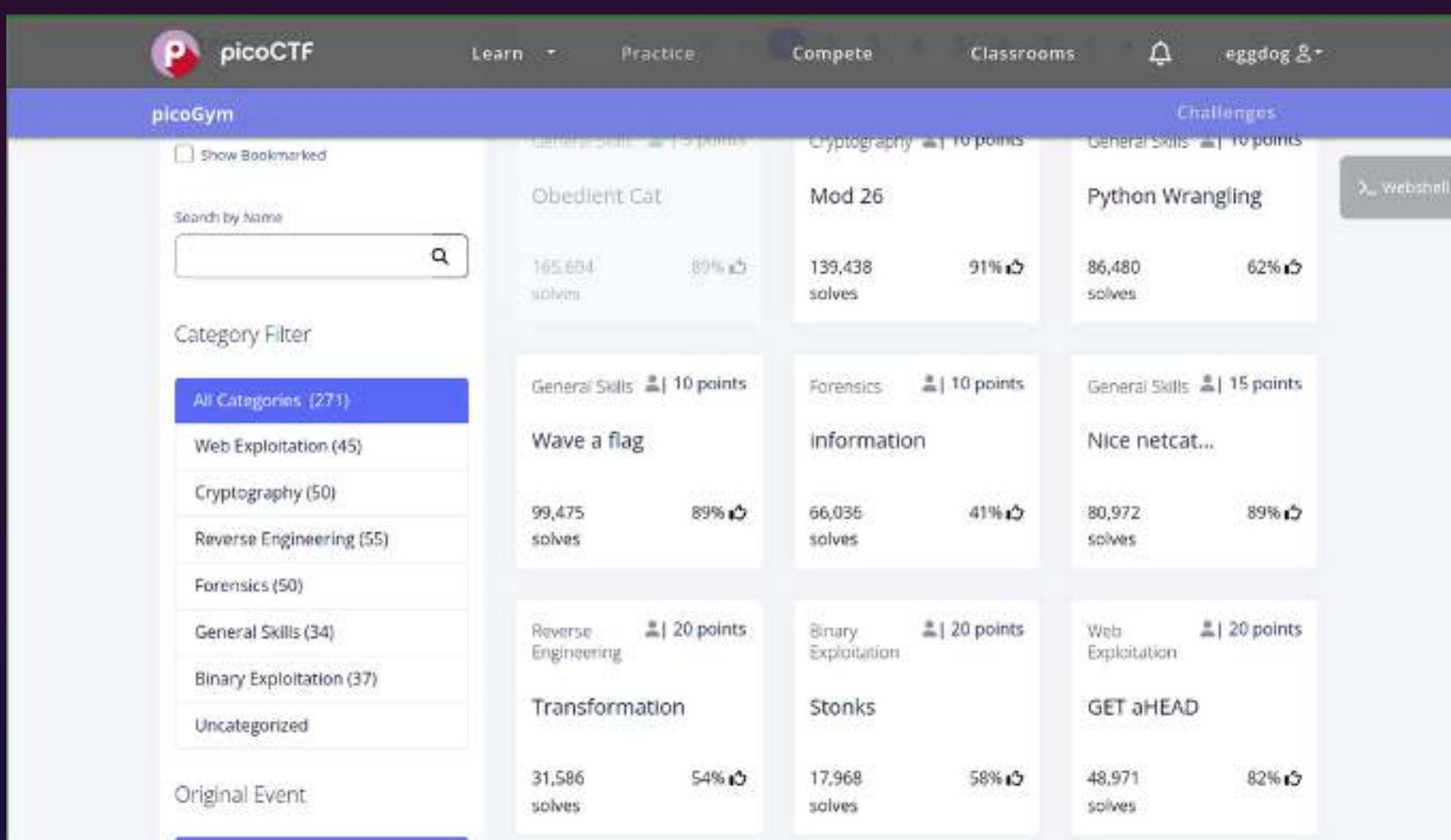
DISCORD

If you want to ask for help, you can access the private [Discord server](#) and join the community.

GENERATE CODE

Where to find these CTF

PicoCTF



picoGym

Show Bookmarked

Search by Name

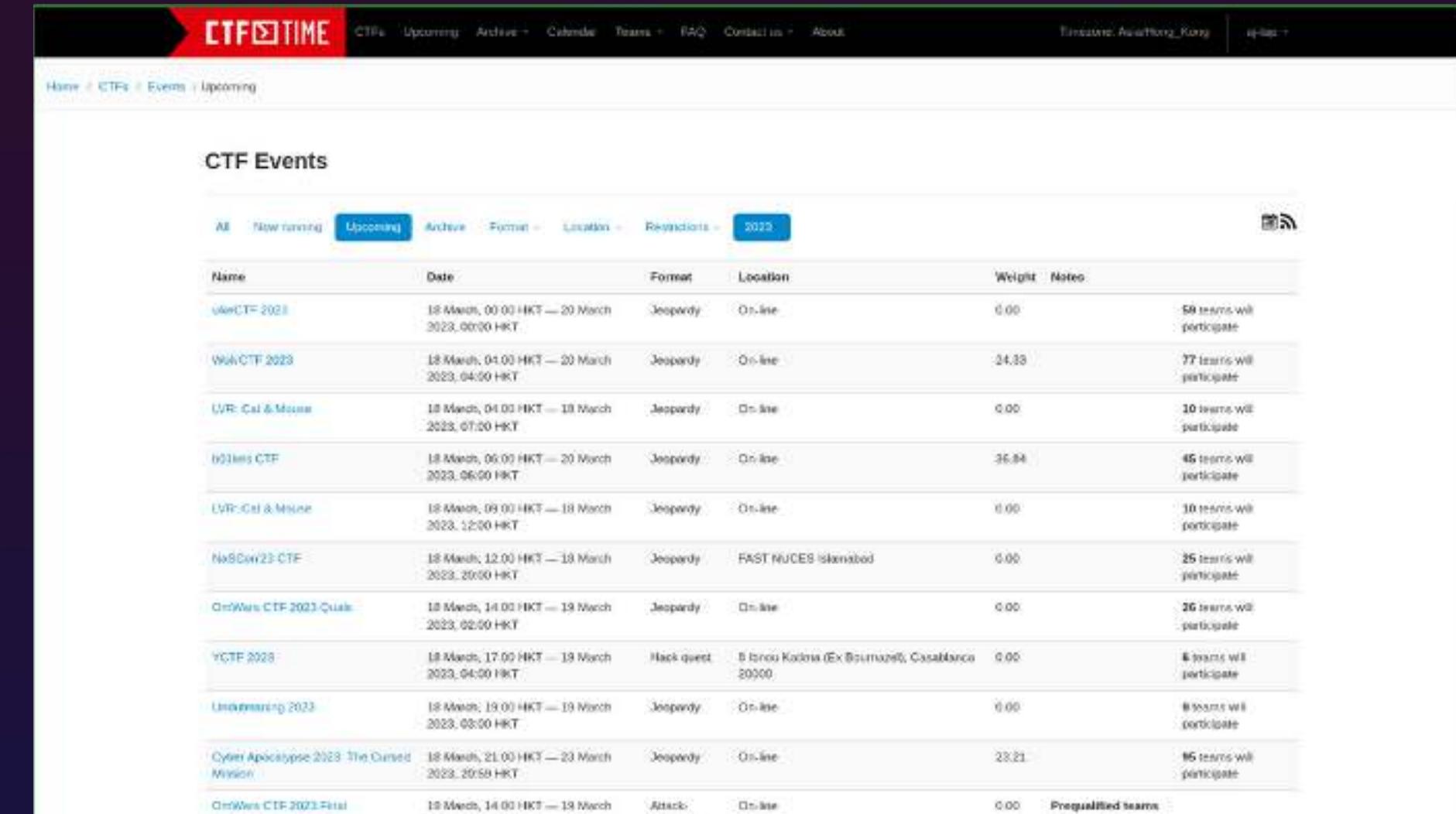
Category Filter

- All Categories (271)
- Web Exploitation (45)
- Cryptography (50)
- Reverse Engineering (55)
- Forensics (50)
- General Skills (34)
- Binary Exploitation (37)
- Uncategorized
- Original Event

Challenges

Challenge	Points	Solves	Completion %
General Skills	10 points	165,694	89% ⚡
Cryptography	10 points	139,438	91% ⚡
Forensics	10 points	66,036	41% ⚡
General Skills	15 points	86,480	62% ⚡
Mod 26	10 points	99,475	89% ⚡
Information	10 points	80,972	89% ⚡
Binary Exploitation	20 points	17,968	58% ⚡
Transformation	20 points	48,971	82% ⚡
Stonks	20 points		
Web Exploitation	20 points		
GET aHEAD	20 points		
Obelix Cat	10 points		
Nice netcat...	15 points		
Python Wrangling	10 points		
General Skills	10 points		
Webshell			

CTF Time



CTF Events

All New running Upcoming Archive Format Location Registrants 2023

Name	Date	Format	Location	Weight	Notes
uWerCTF 2023	18 March, 00:00 HKT — 20 March 2023, 00:00 HKT	Jeopardy	Online	0.00	59 teams will participate
WuCTF 2023	18 March, 04:00 HKT — 20 March 2023, 04:00 HKT	Jeopardy	Online	24.33	77 teams will participate
LVR: Cat & Mouse	18 March, 04:00 HKT — 18 March 2023, 07:00 HKT	Jeopardy	Online	0.00	10 teams will participate
b03mz CTF	18 March, 06:00 HKT — 20 March 2023, 06:00 HKT	Jeopardy	Online	36.84	46 teams will participate
LVR: Cat & Mouse	18 March, 09:00 HKT — 18 March 2023, 12:00 HKT	Jeopardy	Online	0.00	10 teams will participate
NuCloud23-CTF	18 March, 12:00 HKT — 18 March 2023, 20:00 HKT	Jeopardy	FAST NUCCS Islamabad	0.00	25 teams will participate
OniWer CTF 2023-Quals	18 March, 14:00 HKT — 19 March 2023, 02:00 HKT	Jeopardy	Online	0.00	26 teams will participate
YCTF 2023	18 March, 17:00 HKT — 19 March 2023, 04:00 HKT	Hack quest	8 Israa Kadra (Ex Boumazg), Casablanca 20200	0.00	8 teams will participate
Unleashing 2023	18 March, 19:00 HKT — 19 March 2023, 03:00 HKT	Jeopardy	Online	0.00	8 teams will participate
Cyber Apocalypse 2023: The Darkest Mission	18 March, 21:00 HKT — 23 March 2023, 20:58 HKT	Jeopardy	Online	23.21	16 teams will participate
OniWer CTF 2023-Final	18 March, 14:00 HKT — 19 March 2023, 02:00 HKT	Attack-Defense	Online	0.00	Prequalified teams only

CTF Examples Question

Obedient Cat 

Tags: picoCTF 2021 General Skills

AUTHOR: SYREAL

Description

This file has a flag in plain sight (aka "in-the-clear").

[Download flag.](#)

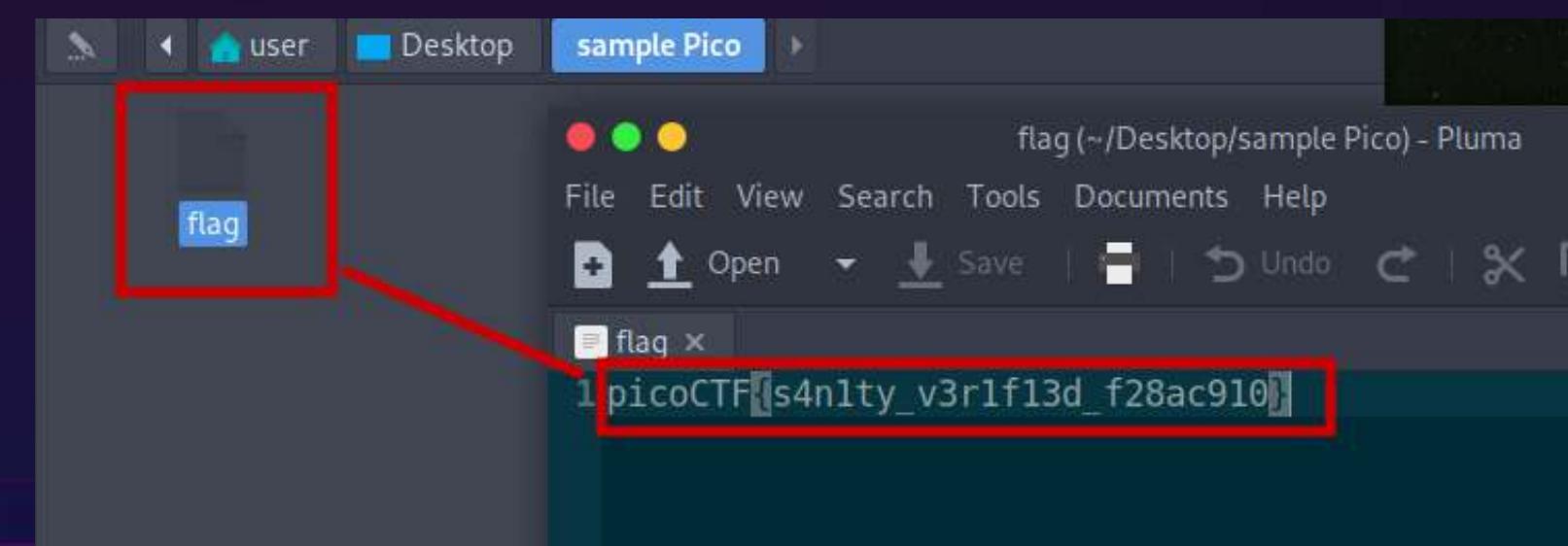
165,691 solves / 170,261 users attempted
(97%)

89% Liked

 picoCTF{s4n1ty_v3r1f13d_f28ac910}

[Submit Flag](#)

Title
Short description
Attachment
Inputflag





CTF SAMPLE CHALLENGE

File attachment name: WindowsXP.jpg



Category: OSINT

Description:

What information can you possibly get with just one photo?

Flags to capture:

- What is this users avatar of?
- What city is this person in?
- What is his personal email address?
- What site did you find his email address on?
- Where has he gone on holiday?
- What is this persons password?



CTF CHALLENGE RECAP



Understand the problem by researching.

- Google
 - We search OSINT and stumble a Methodology called OSINT framework
 - We learn that Photos Contains Metadata.

```
$ exiftool WindowsXP.jpg | grep Copyright  
Copyright : OWoodflint
```

Using Exiftool that we learn from OSINT framework we extract metadata of the file

- Copyright:OWoodflint



What is this persons password?
Answer: pennYDrOpper.!



What is his personal email address?
Answer: OWoodflint@gmail.com

Where has he gone on holiday?
Answer: OWoodflint@gmail.com

We also found his OWoodflint's wordpress flag.

While doing the problem you constantly researching new topics we don't know and learn new concepts, techniques and methodologies.



What is this users avatar of?
Answer: Cat

Simple google search of Owoodflint will reveal his accounts.

- He tweeted a Bssid which near in his house.



What city is this person in?
Answer: London

By researching again we find out there is concept called "Wardriving" and based from OSINT Framework.

Wigle is a database of wireless access points and cell tower locations

CTF Learning Process

Principles of CTF

- Applied, deliberate practice
- Autodidactic Learning
- Creative Problem solving

4

Reflections

- Look back
- taking the time to reflect and look back at what you have done
- Examine the solution obtained

3

Implementation

- Carry out the plan
 - care and patience
- Persist with the plan that
- You have chosen. If it continues not to work discard it and choose another



1

Analysis

- Understand the problem
- Most of the time you will encounter unknown problem.
- Research Skills
 - OSINT
 - Google the Topic

2

Planning

- Guess and check
- Make an orderly list
- Eliminate Possibilities
- Look for a pattern
- Draw a picture
- Use a Model.

OSINT SKILLS CAN BE USED TO PROFILE CYBERCRIMINALS

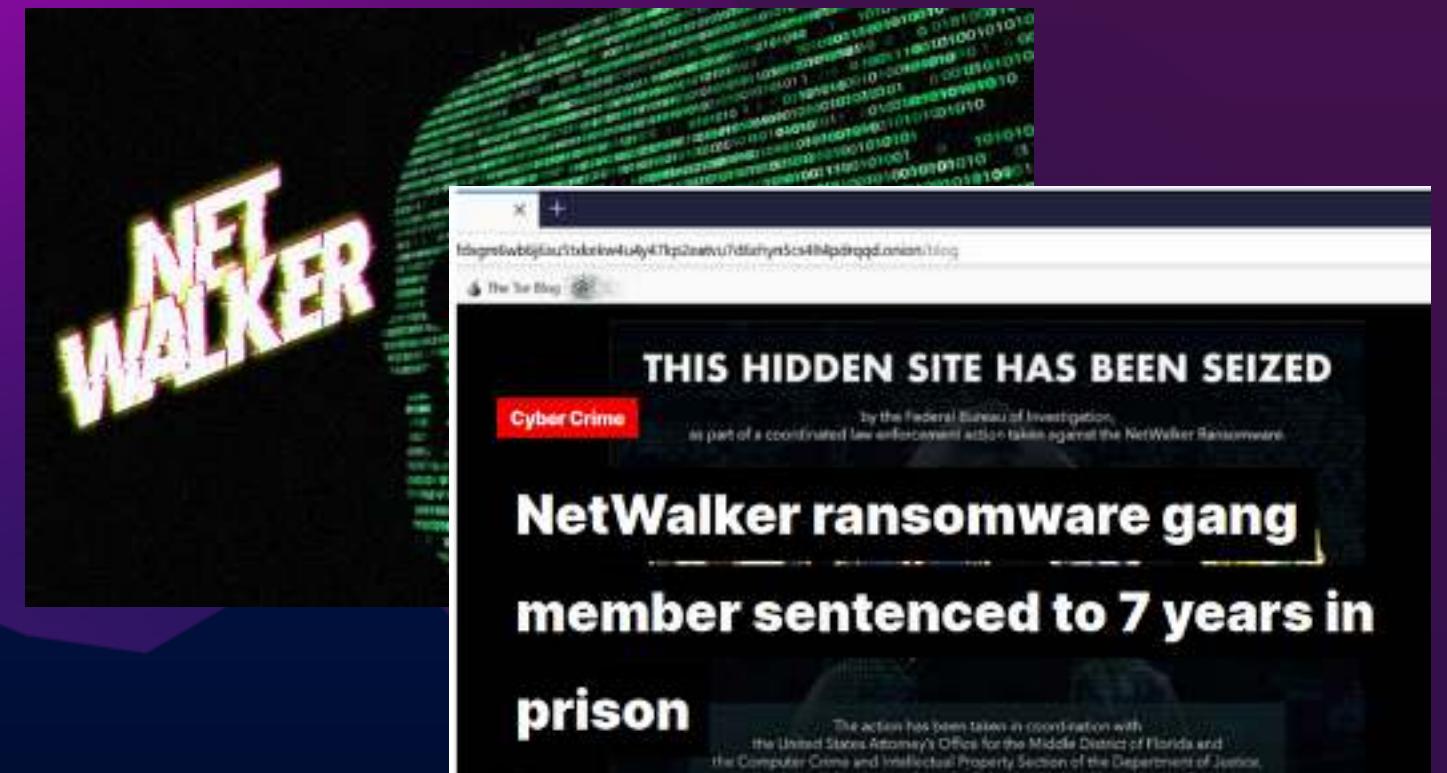


Authorities soon tracked Sokolovsky's phone through Germany and eventually to The Netherlands, with his female companion helpfully documenting every step of the trip on her Instagram account.

<https://darknetdiaries.com/transcript/54/>
<https://darknetdiaries.com/episode/58/>
<https://www.hackread.com/netwalker-ransomware-gang-member-imprisoned/>
<https://krebsonsecurity.com/2022/10/accused-raccoon-malware-developer-fled-ukraine-after-russian-invasion/>
<https://www.pcmag.com/news/us-indicts-ukrainian-for-raccoon-stealer-malware-that-hit-millions-of-computers>



Researchers who analyzed the malware found that it contained metadata that pointed to the use of a Russian-made programming tool called "Pelles C". The metadata also contained a reference to a file path that contained the username of the developer who created the malware.

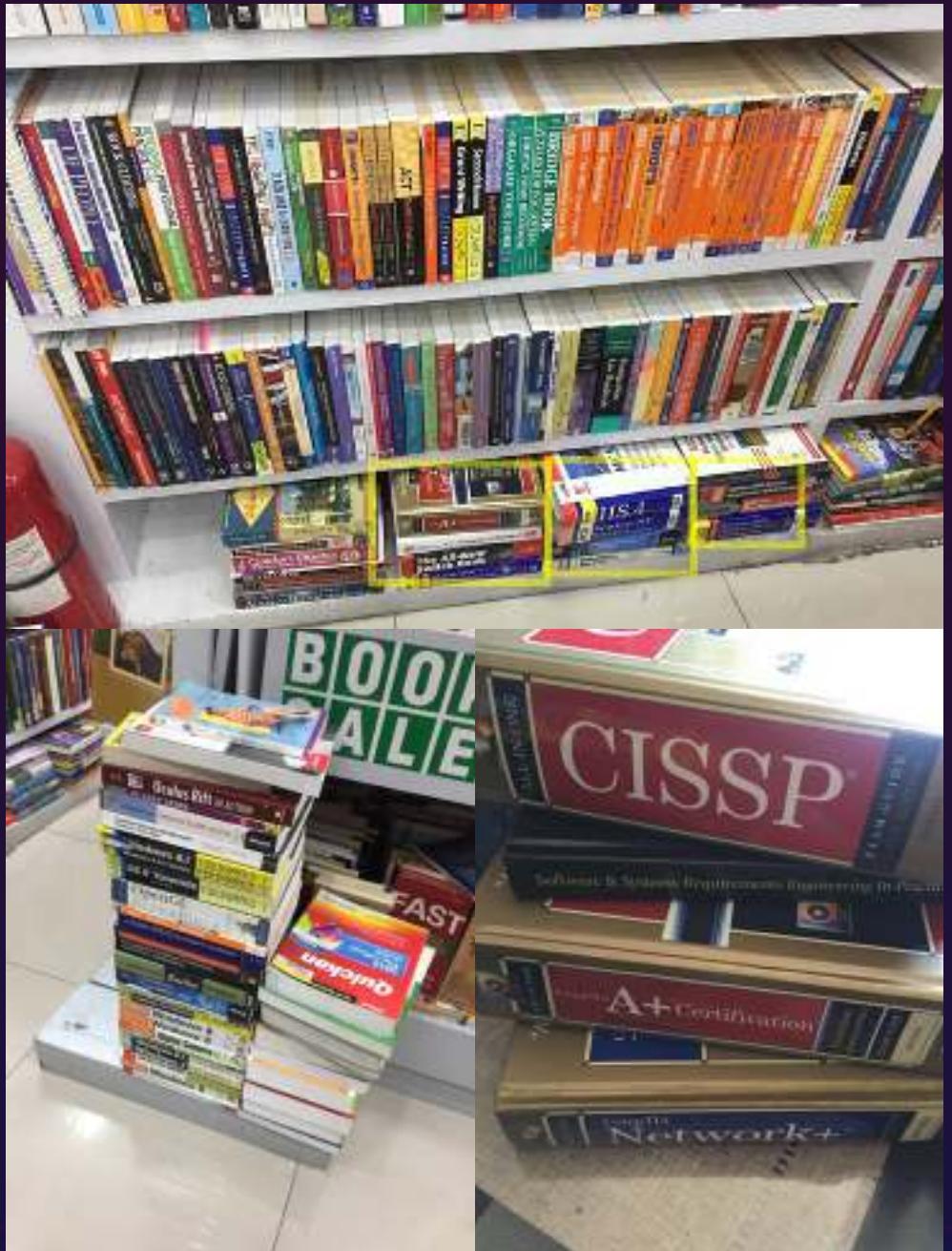


"based on internet protocol addresses, data gleaned from US investigations into various Apple, Google, Microsoft, and Mega.nz accounts, aliases, email addresses, and personal information revealed on social media platforms, the Defendant was identified by the Canadian authorities," court documents revealed.



Tips and tricks

GATHERING RESOURCES



Used book sale

- Cost effective
- Supplementary material
- Exam objectives remain the same
- Familiarity with older technologies
- Historical information

Blue Team Training - LetsDefend

<https://letsdefend.io/>

50% off code: BLCKFRDY

Deal ends: 2nd December

Offensive Security - Penetration Testing Training

<https://www.offensive-security.com/learn-one/>

20% off Learn One

Deal ends: 31st December

SEKTOR7 Institute

<https://institute.sektor7.net>

25% off regular price with code: BEFICOM-22

Deal ends: Cyber Monday

Black Friday sales

- discounted Prices/Certifications/Training
- <https://github.com/0x90n/InfoSec-Black-Friday>

A screenshot of a search results page from DuckDuckGo. The search query is "awesome pentest". The results include a link to a GitHub repository for "Awesome Reverse Engineering" and another for "Awesome Threat Detection and Hunting".

Google dorking or just simply search

Awesome <Topics> you can Currrated list.

HOW TO STAY UPDATED



RSS Feed

convenient way to stay up-to-date with multiple websites and sources of information without having to visit each site individually.



Twitter

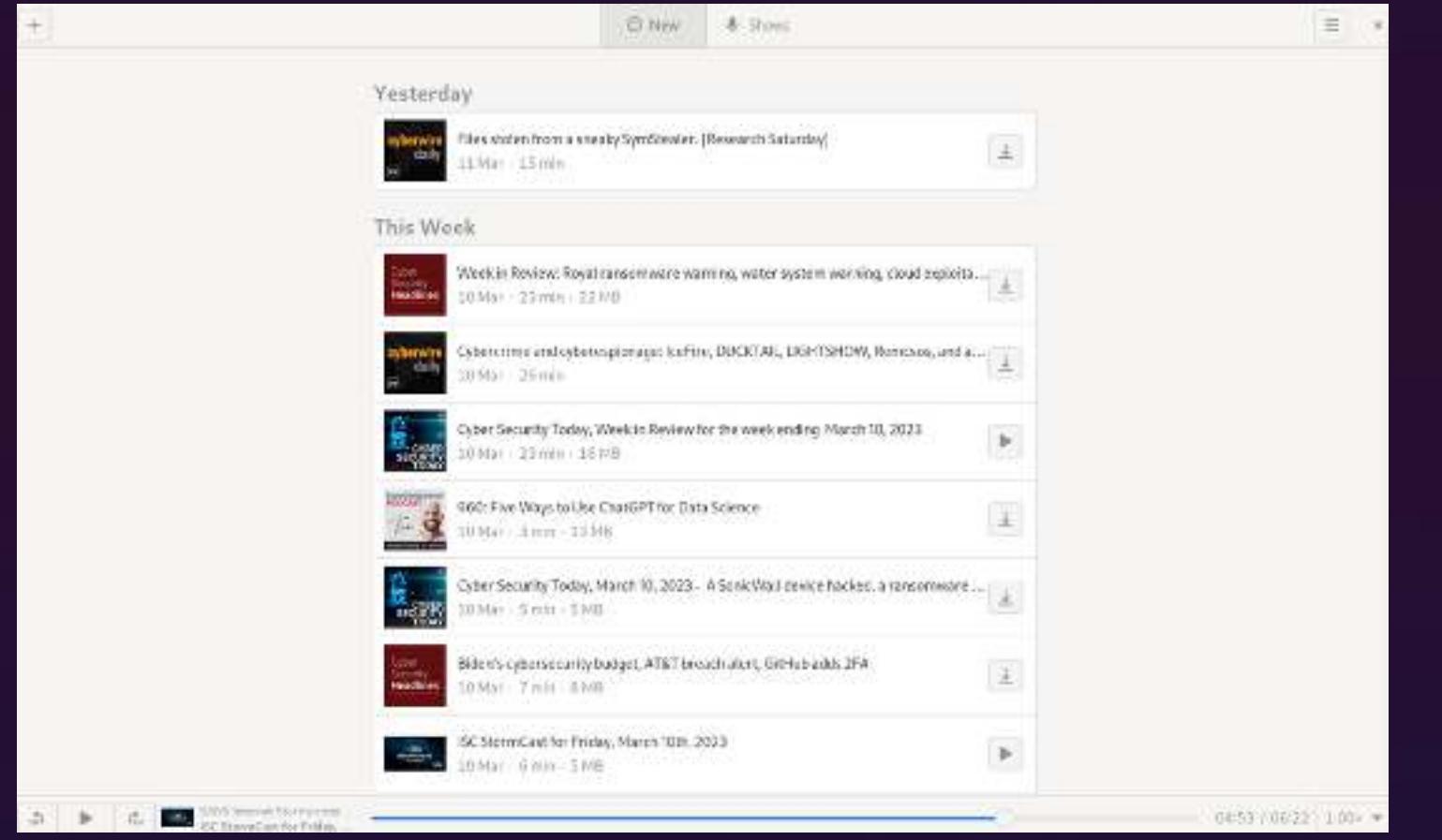
Twitter is a great platform for staying up-to-date with the latest news and developments in the field of information security (InfoSec).



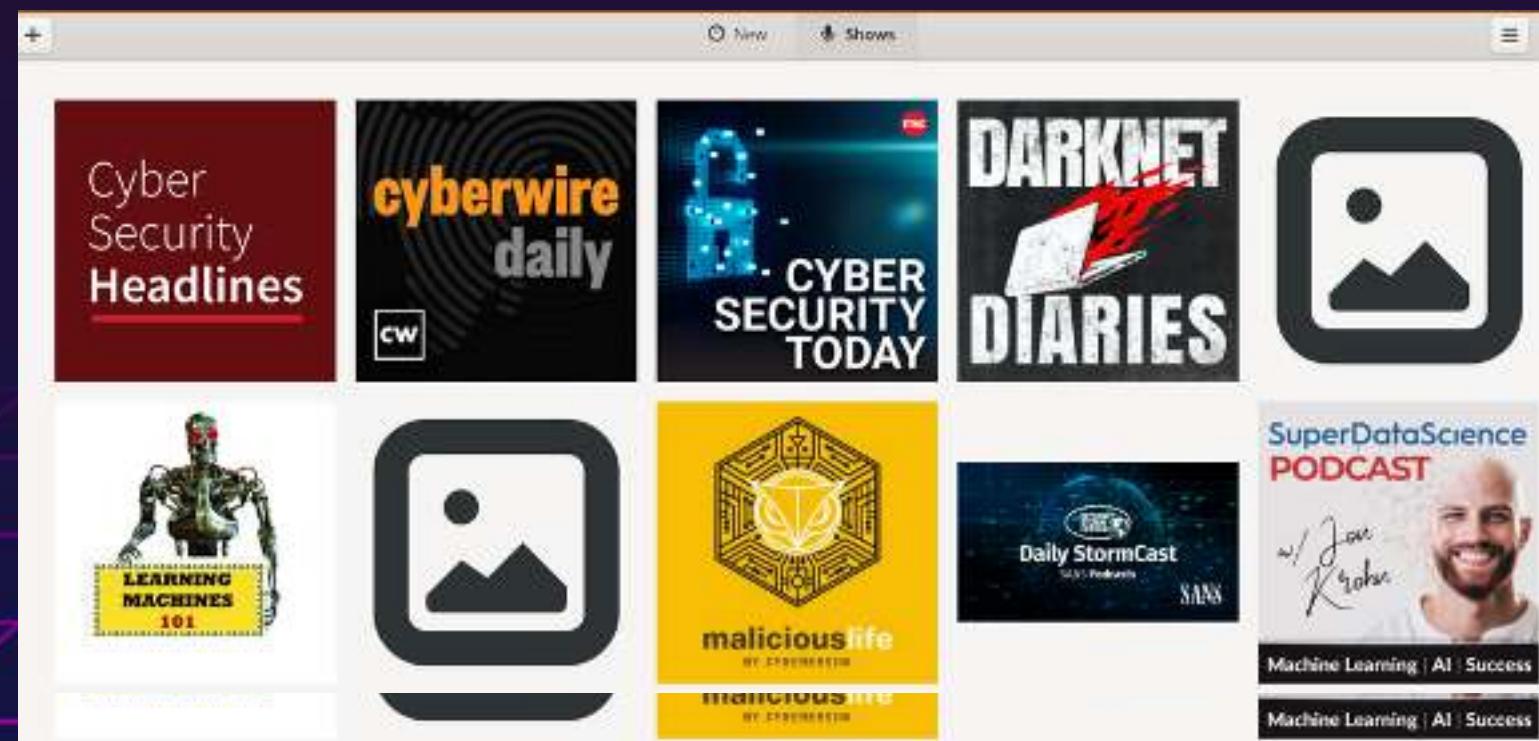
InfoSec Communities

Communities are typically focused on helping people learn about security, providing a platform for security professionals to network and collaborate, or sharing the latest security news and developments.

HOW TO STAY UPDATED

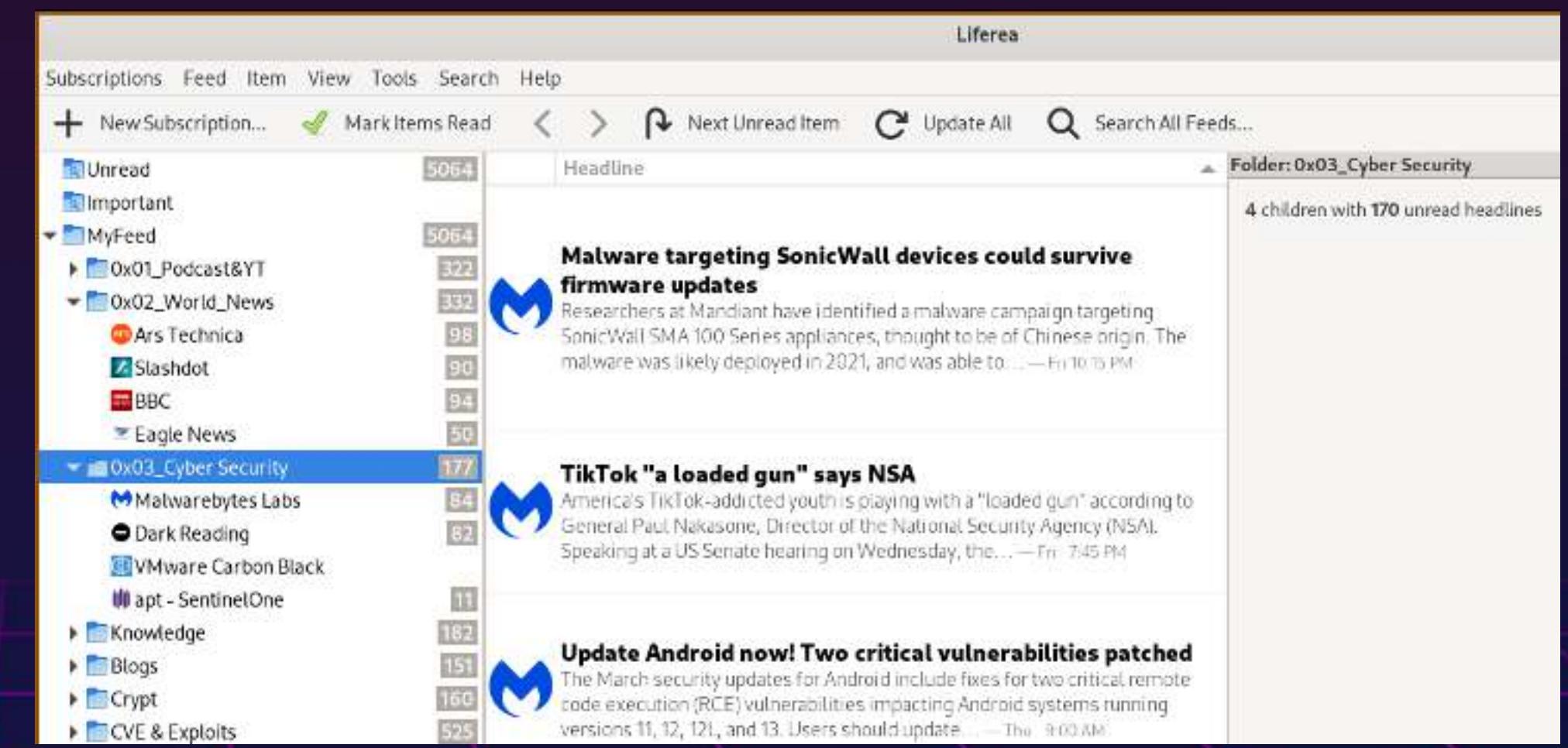


This screenshot shows a desktop application for managing RSS feeds. The interface is divided into two main sections: 'Yesterday' and 'This Week'. The 'Yesterday' section contains one item: 'Cyberwire daily' from 'cyberwire.com'. The 'This Week' section contains several items, including 'Week in Review: Royal ransomware warning, water system warning, cloud exploits...' from 'cybersecuritytoday.com', 'Cybercrime and cyberespionage: IsFIRE, DUCKTAKE, LIGHTSHDW, Remcos, and a...' from 'cyberwire.com', 'Cyber Security Today, Week in Review for the week ending March 10, 2023' from 'cybersecuritytoday.com', 'AI: Five Ways to Use ChatGPT for Data Science' from 'cybersecuritytoday.com', 'Cyber Security Today, March 10, 2023 - A SonicWall device hacked, a ransomware...' from 'cybersecuritytoday.com', 'Biden's cybersecurity budget, AT&T broadband, GitHub adds 2FA' from 'cybersecuritytoday.com', and 'GC StormCast for Friday, March 10th, 2023' from 'cybersecuritytoday.com'.



This screenshot shows a desktop application for managing RSS feeds. The interface displays a list of news items from various sources. The items include: 'Cyber Security Headlines' from 'cybersecuritytoday.com', 'cyberwire daily' from 'cyberwire.com', 'CYBER SECURITY TODAY' from 'cybersecuritytoday.com', 'DARKNET DIARIES' from 'darknetdiaries.com', 'SuperDataScience PODCAST' from 'superdatasciencetech.com', 'Learning Machines 101' from 'learningmachines101.com', 'maliciouslife BY CYBERSECURITY' from 'maliciouslife.com', 'Daily StormCast' from 'cybersecuritytoday.com', and 'Machine Learning | AI | Success' from 'superdatasciencetech.com'.

RSS feeds are a great way to stay updated on the latest content from websites you follow without having to visit each website individually

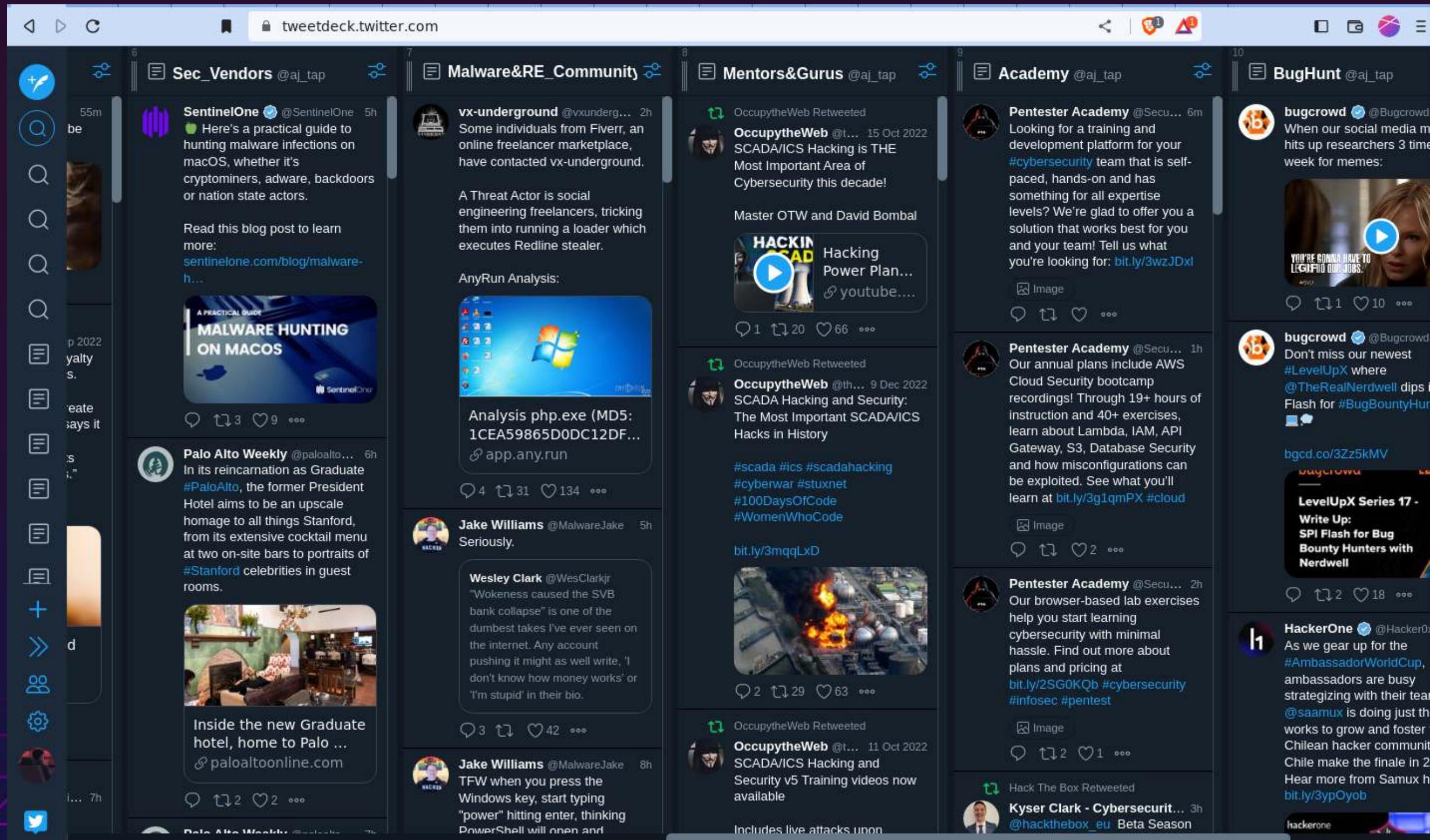


This screenshot shows a desktop application for managing RSS feeds, specifically Liferea. The interface includes a sidebar on the right showing a folder structure and a main pane displaying news items. The sidebar shows a folder named '0x03_Cyber Security' with 170 unread headlines. The main pane displays three news items:

- Malware targeting SonicWall devices could survive firmware updates**
Researchers at Mandiant have identified a malware campaign targeting SonicWall SMA 100 Series appliances, thought to be of Chinese origin. The malware was likely deployed in 2021, and was able to... — Fri 10:15 PM
- TikTok "a loaded gun" says NSA**
America's TikTok-addicted youth is playing with a "loaded gun" according to General Paul Nakasone, Director of the National Security Agency (NSA). Speaking at a US Senate hearing on Wednesday, the... — Fri 7:45 PM
- Update Android now! Two critical vulnerabilities patched**
The March security updates for Android include fixes for two critical remote code execution (RCE) vulnerabilities impacting Android systems running versions 11, 12, 121, and 13. Users should update... — Thu 9:00 AM



HOW TO STAY UPDATED



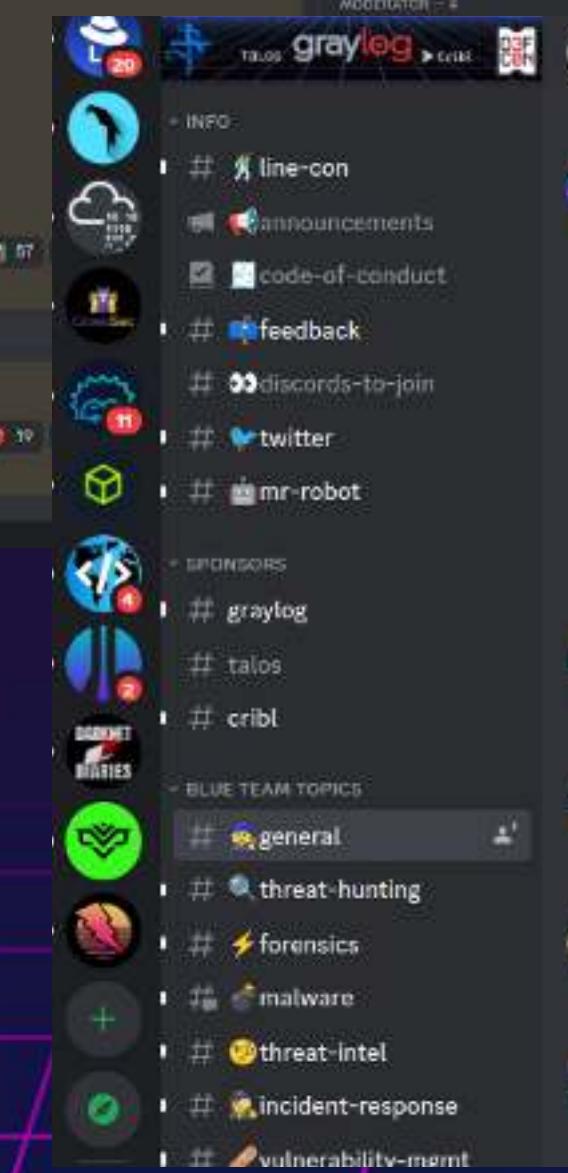
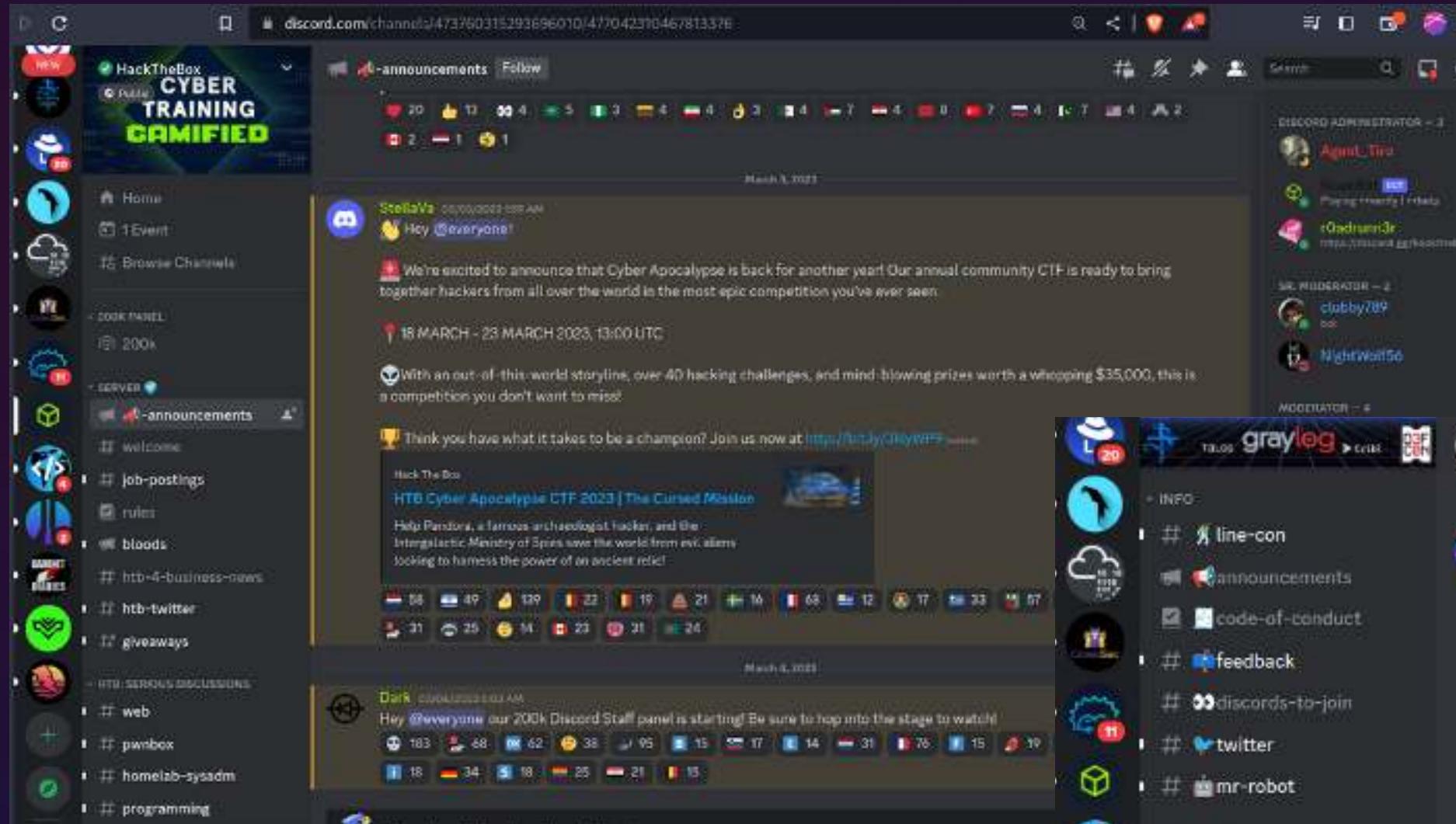
The screenshot shows a dark-themed interface of the Tweetdeck application. On the left, there's a sidebar with various icons for managing accounts and filters. The main area is divided into several columns, each representing a different Twitter list or account. The columns include:

- Sec_Vendors @aj_tap**: A tweet from **SentinelOne** (@SentinelOne) about a practical guide to hunting malware infections on macOS.
- Malware&RE_Community**: A tweet from **vx-underground** (@vxunderg... 2h) about individuals from Fiverr contacting them.
- Mentors&Gurus @aj_tap**: A tweet from **OccupytheWeb** (@t... 15 Oct 2022) about SCADA/ICS Hacking being the most important area of cybersecurity.
- Academy @aj_tap**: A tweet from **Pentester Academy** (@Secu... 6m) about their hacking power plan.
- BugHunt @aj_tap**: A tweet from **bugcrowd** (@Bugcrowd) about their social media meme hunt.
- Palo Alto Weekly @paloalto...**: A tweet from **Palo Alto Weekly** (@paloalto...) about the new Graduate Hotel.
- Jake Williams @MalwareJake**: A tweet from **Jake Williams** (@MalwareJake) about the Stanford Graduate Hotel.
- Wesley Clark @WesClarkjr**: A tweet from **Wesley Clark** (@WesClarkjr) about the SBV bank collapse.
- OccupytheWeb**: A tweet from **OccupytheWeb** (@th... 9 Dec 2022) about SCADA Hacking and Security.
- Pentester Academy**: A tweet from **Pentester Academy** (@Secu... 1h) about their annual AWS Cloud Security bootcamp.
- bugcrowd**: A tweet from **bugcrowd** (@Bugcrowd) about their LevelUpX event.
- LevelUpX Series 17**: A tweet from **LevelUpX Series 17** (@LevelUpX) about their SPI Flash for Bug Bounty Hunters.
- HackerOne @Hacker0**: A tweet from **HackerOne** (@Hacker0) about the Ambassador World Cup.
- Kyser Clark - Cybersecurit...**: A tweet from **Kyser Clark - Cybersecurit...** (@hackthebox_eu) about the Beta Season of Hack The Box.



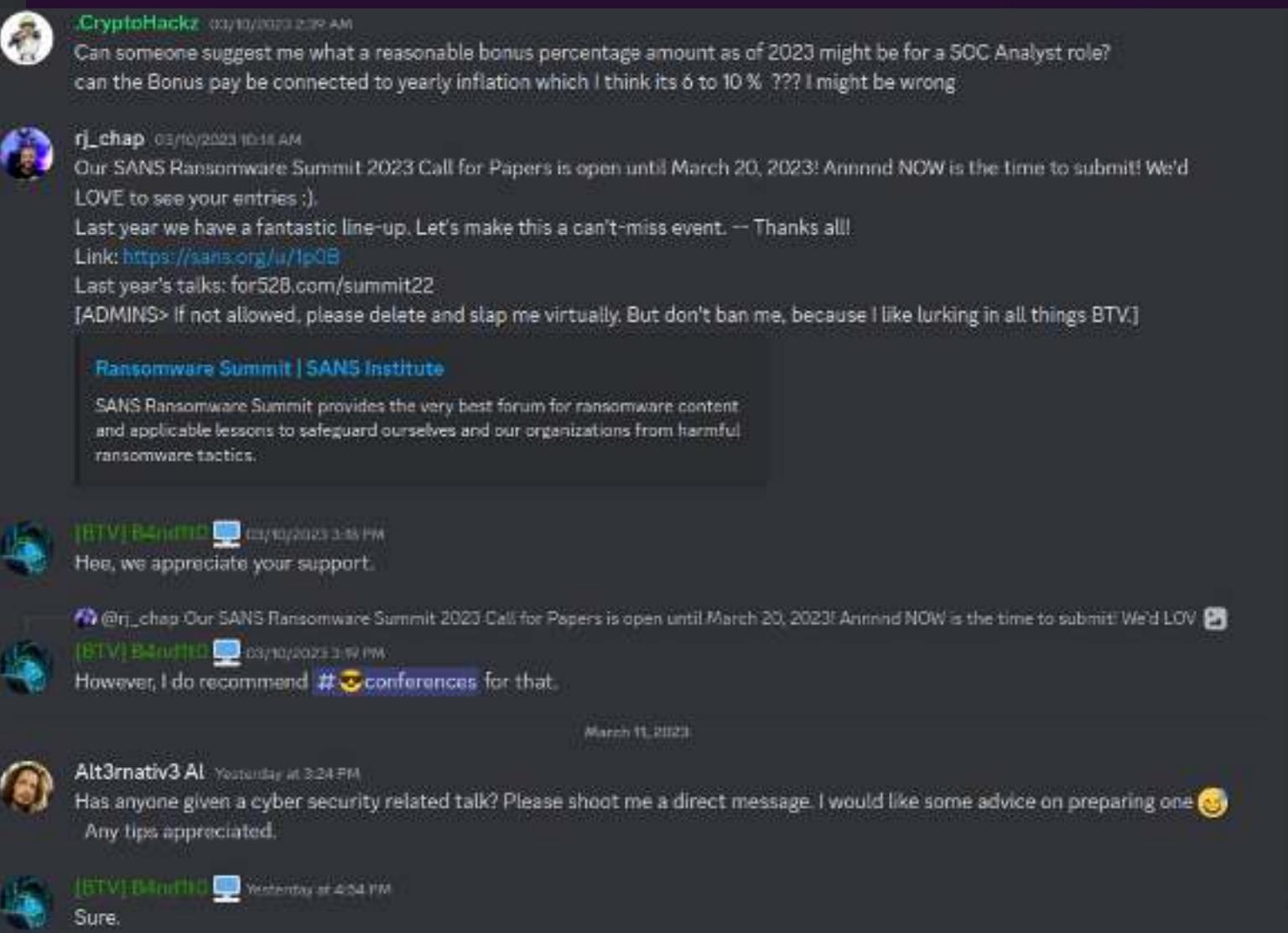
social media dashboard application that allows users to manage and organize their Twitter accounts.

HOW TO STAY UPDATED



several communities dedicated to information security (InfoSec).

Network with people :)



HOW TO RETAIN LEARNINGS



Zettelkasten

note-taking method that involves creating small, interconnected notes or "slips" that can be linked together to form a knowledge graph.



Note-taking apps

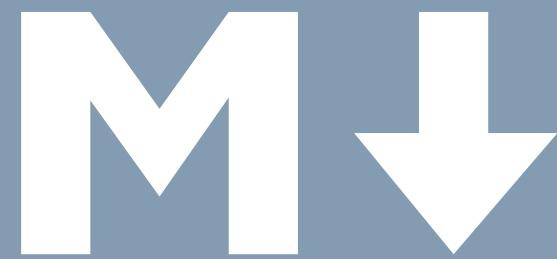
Such as Obsidian, Notion, Evernote, TiddlyWiki and Roam Research



Spaced Repetition

learning technique that uses flashcards to help you remember and recall information. which involves repeating information at increasingly spaced intervals to improve memory retention.

YOUR ROADMAP TEMPLATE



Ultra learning MD notebook template

The screenshot shows an Obsidian vault with the following structure:

- Basic IT** (19 cards):
 - Basics-of-computer-networking
 - os-independent-troubleshooting
 - computer-hardware-components
 - popular-suites-ms-office
 - popular-suites-google-suite
 - popular-suites-icloud
 - connection-types-nfc
 - connection-wifi
 - connection-types-bluetooth
 - connection-types-infrared
 - VM-Technologies-vmware
 - VM-Technologies-virtualbox
 - VM-Technologies-esxi
 - VM-Technologies-proxmox
 - Virtualization-basics
- Operating Systems** (17 cards):
 - Windows Internals
 - Windows-install-and-configure
 - Windows-versions-and-differences
 - Windows-navigating-using-gui-and-cli
 - Windows-understand-permissions
 - Windows-installing-apps
 - Windows-performing-crud-on-files
 - Windows-troubleshooting
 - Windows-common-commands
 - Linux-install-and-configure
 - Linux-versions-and-differences
 - Linux-navigating-using-gui-and-cli
 - Linux-understand-permissions
- Networking Knowledge** (59 cards):
 - Osi-model
 - common-ports
 - ssl-and-tls-basics
 - basics-of-nas-and-san
 - basics-of-subnetting
 - ip-terminology
 - ip-terminology-public-vs-private-ip-addresses
 - ip-terminology-localhost
 - ip-terminology-loopback
 - ip-terminology-wan
 - ip-terminology-cidr
 - ip-terminology-subnet-mask
 - network-topologies-default-gateway
 - network-topologies-star-topology
 - network-topologies-ring-topology
- Programming Languages** (10 cards):
 - ash
 - power-shell
 - python
 - c
 - javascript
 - pp

- Contains plugins and templates that can help you retain your learning

Notebook template:

<https://drive.google.com/file/d/1xNAuePD9SM7mwrnMdRDeIgnbWy6msbcy/view?usp=sharing>

RSS feedlist:

https://drive.google.com/file/d/1YJgF3mjue0juiRr6uJLqNBE3sUvwUFLF/view?usp=share_link

How to use it.

1. Download the obsidian note taking app
 - a. <https://obsidian.md>
2. Download and extract the template
3. Open as vault and specify the template directory

Tutorial in setting up your own:

<https://www.youtube.com/watch?v=E6ySG7xYgjY>

THANK YOU FOR LISTENING



GuidEM Training Center

Cybersecurity live training courses such as Cyber Defense, Threat Hunting, Digital Forensics, Memory Analysis and some

<https://www.facebook.com/guidemtraining>



Association of Computer Science Student

ACSS Be part of our team we will conduct CTF competitions, hackthons and webinars.

