WHAT IS CAPTURE THE FLAG?

A Fabulous (and Fun) Way to Learn and Sharpen Cybersecurity Skills!

By Penelope Rozhkova

AGENDA

01/ CTF VS HACK-A-THON

02/ TYPES OF CTF GAMES

03/ WHERE TO START

04/ SHARPENING SKILLS

05/ UPPING YOUR GAME – PROFESSIONAL DEVELOPMENT

CTF VS HACK-A-THON

CTF -- WHAT IT'S NOT

Hack-a-thon

Hackathon - Wikipedia

https://en.wikipedia.org › wiki › Hackathon

A **hackathon** (also known as a hack day, hackfest, datathon or codefest; a portmanteau of hacking marathon) is a design sprint-like event; often, in which **computer programmers** and others involved in **software development**, including graphic designers, interface designers, project managers, domain experts, and others ...

CTF stands for Capture the Flag.

- It is ***not*** a playground or paintball game.

https://www.wikihow.com/Play-Capture-the-Flag

CTF -- WHAT IT IS

- A CTF is a set of security challenges.
- When a challenge is solved, you identify a flag and submit it for points.
- You are provided with a scenario or clues to solve the challenge.
- You use cyber security skills to solve the challenges.

TYPES OF CTF GAMES

JEOPARDY STYLE CTF

CTFLEARN https://ctflearn.com/

Learn Challenges Scoreboard

Category All | Difficulty All | Solved Unsolved | Order Most Solves

Search | Reset Filters

All
Web
Forensics
Binary
Reverse Engineering
Cryptography
Programming
Miscellaneous

Basic Inject — Easy
30 points
Web · intelagent — 29951 solves

Where Can My Robot Go? — Easy
30 points 198 comments 4.51
Miscellaneous · intelagent — 12779 solves

Base 2 2 the 6 — Easy
20 points 116 comments 4.18
Cryptography · pedro — 10725 solves

POST Practice — Medium
40 points 183 comments 4.40
Web · intelagent — 9180 solves

Hextroadinary — Easy
30 points 134 comments 4.44
Cryptography · crypto — 8341 solves

2 3 4 5 Next

Page Size 6

1 out of 29

Make your teams aware of all types of cyber risks

The challenges proposed by MALICE Events examine all the skills in computer security. They encourage the practice of offensive security techniques so that your teams can better understand how an attack is launched, how much impact it may cause, and how they can protect themselves effectively from such an incident.

We have a catalog of challenge which are immediately available, and if necessary we can also develop new challenge exercises according to the risks specific to your business.

Web
Awareness of all flaws identified by OWASP impacting the websites.

Exploitation
Techniques for operating binary applications.

Cryptography
Low cryptographic algorithms, errors in the use of existing libraries.

Configuration
Exploitation of configuration errors in various frameworks and applications.

Reverse
Analysis of algorithms and applications to understand how they work.

Forensic
Analysis of the traces of an information system to extract data.

Steganography
Techniques for concealing information in a document, an image, or a data flow.

Scripting
Development challenges

https://malice.fr/en/jeopardy

JEOPARDY STYLE CTF

MetaCTF Problems Scoreboard Rules Stats https://metactf.com/cybergames Logout Dashboard

~~Binary Exploitation~~ ~~Cryptography~~ Forensics Reconnaissance

Reverse Engineering Web Exploitation Other

Bonus Help UI Settings CyberChef

Flag Format (solved by 1055 teams) 50

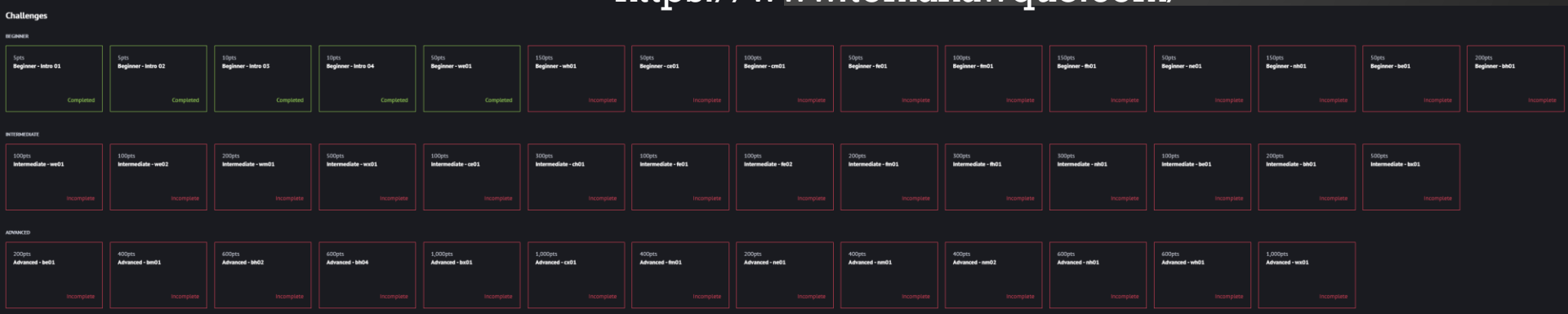
All flags should be obvious and a `string_separated_with_und3rscores`. Most of the flags will be surrounded by `MetaCTF{}` as well, but in the cases where that would make the problem too trivial, we did not include the `MetaCTF{}` part.

If the flag will be in a different format, we will specify that in the problem description. Additionally, all flags are case-insensitive. If you solve this challenge, make sure to tell your teammates about the flag format!

Submit!

SANS TOMAHAWQUE

https://www.tomahawque.com/



ATTACKER VS DEFENDER CTF

Where do I find these things?

- Subscribe to Newsletters
- Security Conferences
- Discord Servers
- Slack Workspaces

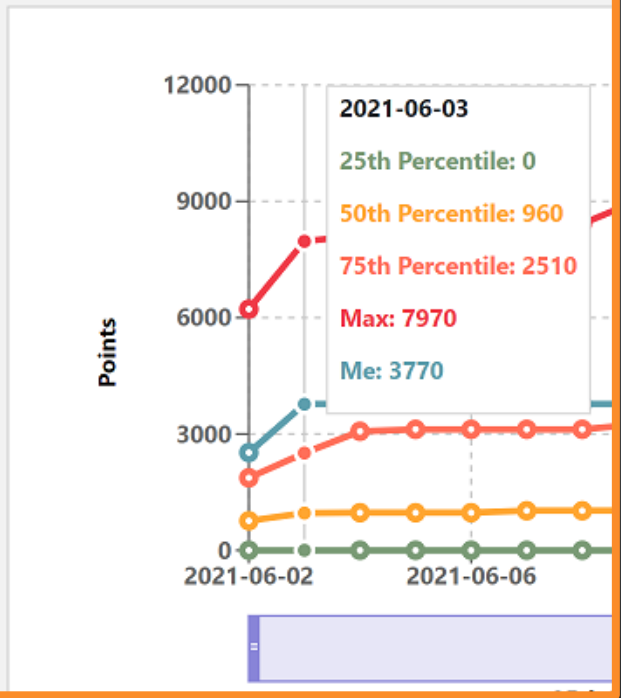
https://medium.com/@redteamvillage/red-team-vs-blue-team-ctf-c0c0n-2019-44fcb42fbd46

RED TEAM

https://cmdnctrl.net/ranges

On this Red Team CTF platform, you attempt to compromise web applications to find flags.

EVENT OVERVIEW



cmd+ctrl
A SECURITY INNOVATION CYBER RANGE

PancakesCon2020
Join another event
75 score
368 rank

Ranges | My Stats | Hacking 101

RANGES

Financial
Shadow Bank
Shadow Bank is the premier bank for people who love cryptocurrencies and hate those pesky minimum password requirements. Transfer money, request a loan, or buy and sell stocks and currencies.
0 challenges solved
NOT AVAILABLE

HR
AccountAll
AccountAll is the HR portal that turns humans into resources. Employees, managers and HR administrators can log in to manage payroll, timesheets, performance reviews and more.
0 challenges solved
NOT AVAILABLE

Retail
Shred
Shred is your one-stop shop for skateboards, spray paint, stencils and all the other trappings of hooliganism. Show off your best work in the graffiti gallery, or buy a gift card for the petty criminal in your life.
0 challenges solved
NOT AVAILABLE

Social Media
InstaFriends
InstaFriends is the social networking site that helps you make friends instantly. Well, probably not you in particular. You weirdo.
1 of 52 challenges solved
EVENT NOT RUNNING

Mobile/IoT
Runstoppable
An Android fitness tracker that will turn you into a Runstoppable human being. NOTE: many challenges must be solved through flag submission found on the "Challenges" page under "My Stats".
0 challenges solved
NOT AVAILABLE

Financial
The Gold Standard
Shadow Bank account got hacked? Switch to the Gold Standard for heightened security and a ROOM FULL OF GOLD.
0 challenges solved
NOT AVAILABLE

Cryptocurrency
DigiExchange
Go crazy with crypto-currencies!
0 challenges solved
NOT AVAILABLE

Marketplace
Letsee
Letsee is the hippest place for all the hottest products. We offer chic 'handmade items' we purchased at goodwill, and marked up 500%. Finally, you can buy happiness!
0 challenges solved
NOT AVAILABLE

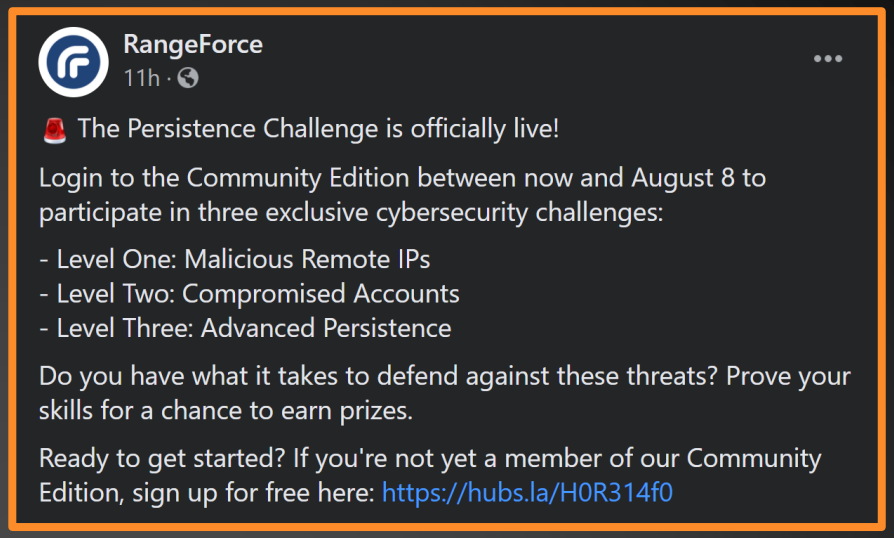
Cloud
Forescient
Welcome to your first day at Forescient! Please create a Portal account to start your journey.
0 challenges solved
NOT AVAILABLE

Cloud
SecureSafeCrate
So Secure. So Safe. So CRATE. Ponder Uniquely Inside Your Crate.
0 challenges solved
NOT AVAILABLE

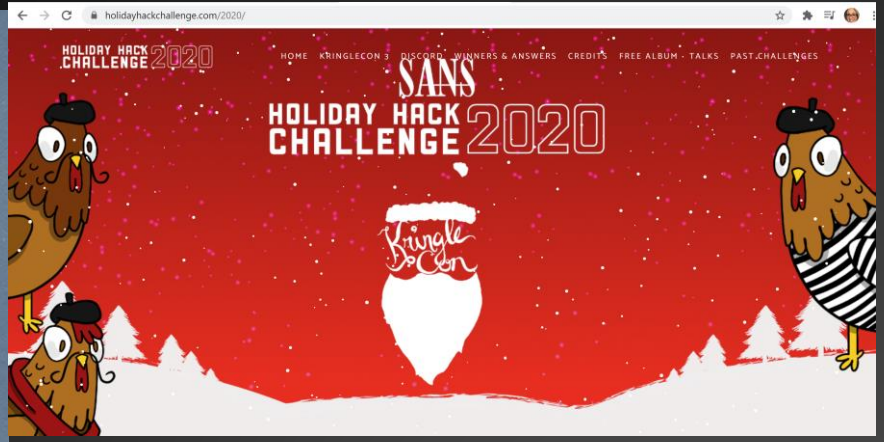
ICMCP_Google_2021
Join another event
3,770 score
37 rank
PiranhaMama

BLUE TEAM

In a Blue Team CTF platform, you attempt to harden systems to prevent compromises to find flags.

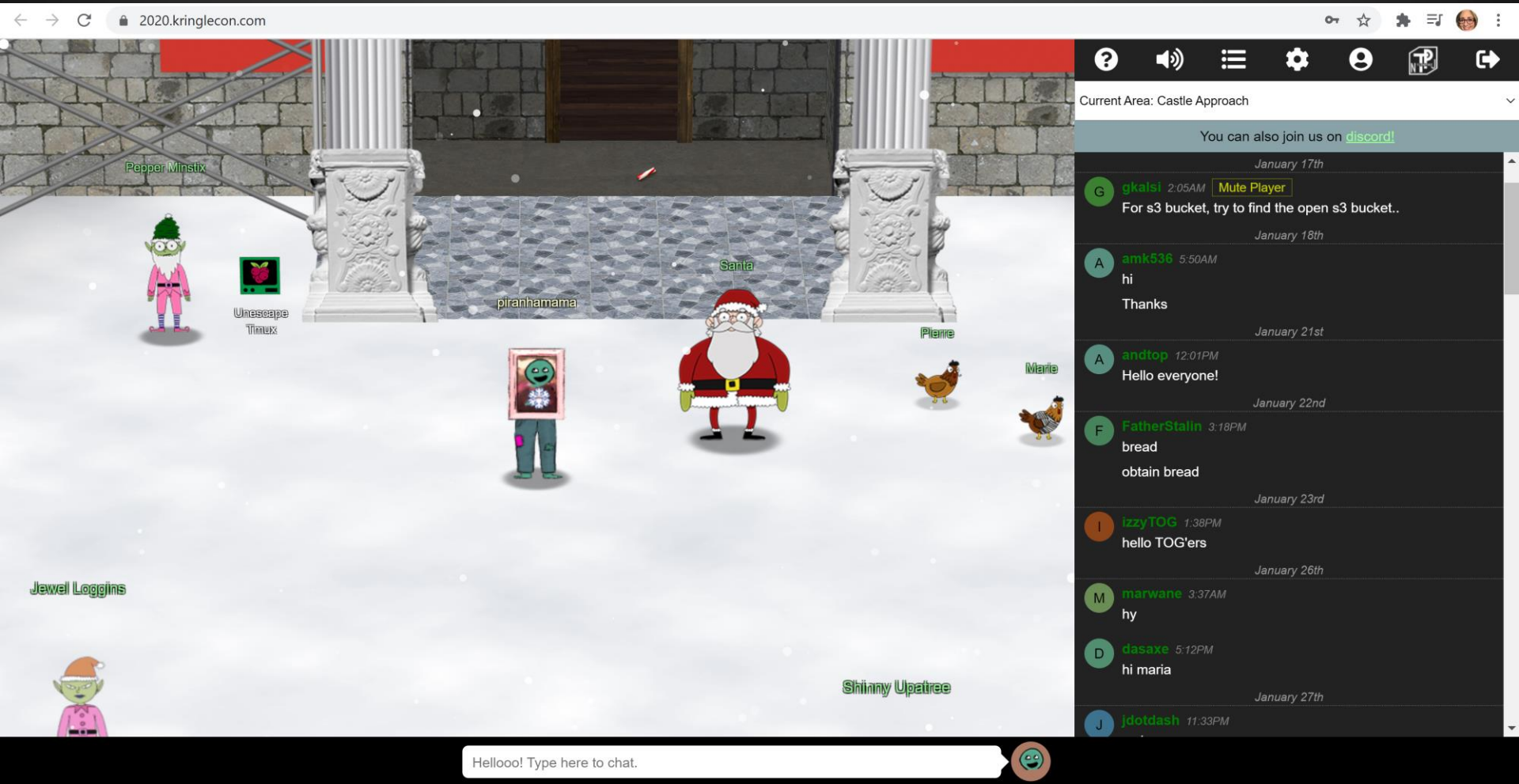


Participate in the Persistence Challenge by logging in to the RangeForce Community Edition platform between July 21st and August 8th.



INTERACTIVE

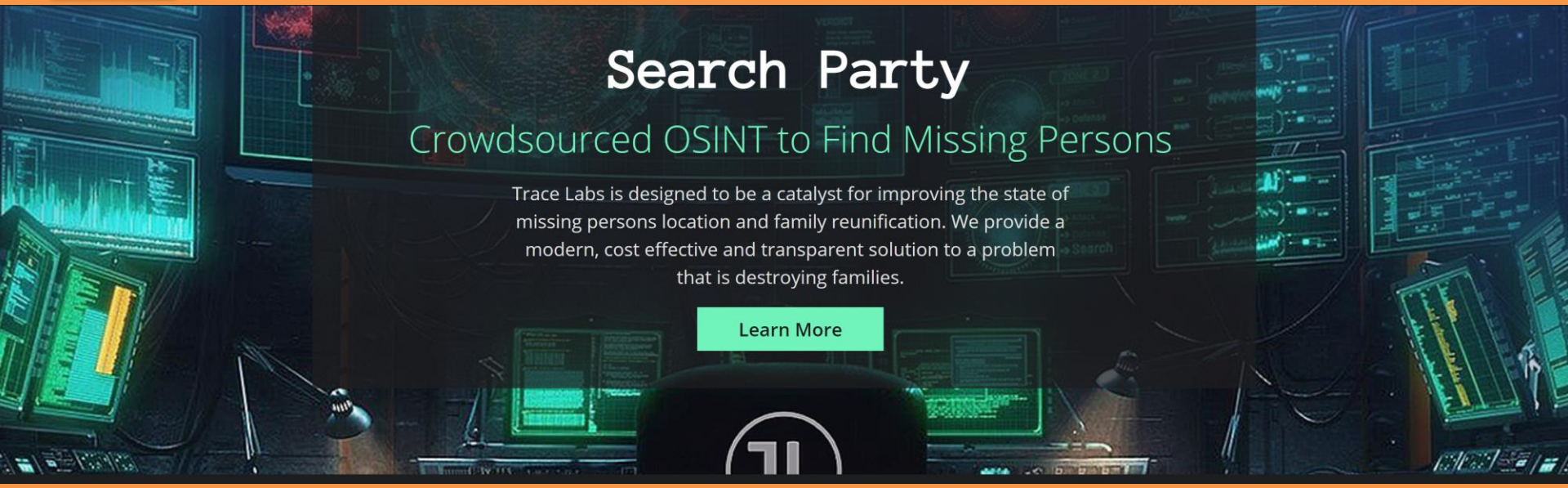
https://2020.kringlecon.com/



ADULTS ONLY

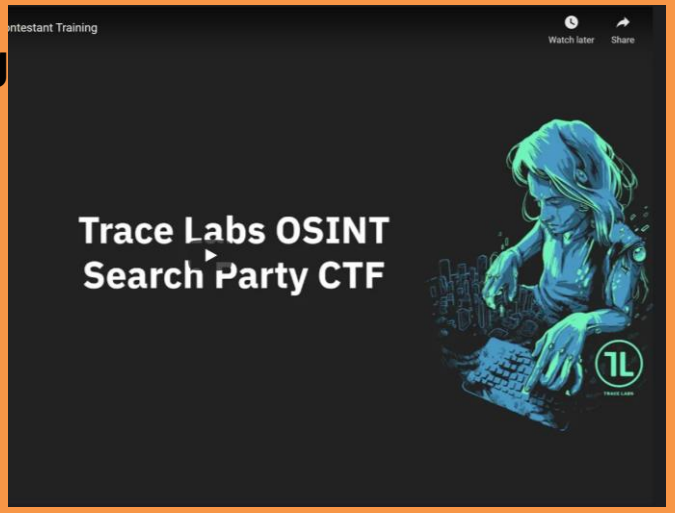
TRACELABS – OSINT FOR GOOD

https://www.tracelabs.org/initiatives/search-party



Trace Labs OSINT Search Party CTF Contestant Training

https://www.youtube.com/watch?v=f526PYm6cqU&t=4s



https://www.tracelabs.org/blog/things-youll-wish-youd-known-before-your-first-search-party-ctf

WHERE TO START

picoCTF

https://picoctf.org/get_started.html

https://www.youtube.com/watch?v=x-qaeuw74WE&list=PL1H1sBF1VAKVTu-v1XcJV9VVdhEEALvkY

picoPrimer

Wonder what the shell is and how to use it? Maybe you haven't thought about cryptography in ages and need a refresh? Revisit concepts you are familiar with or read something new to you in the picoPrimer. Authored by the picoCTF education team, the picoPrimer reviews cybersecurity principles used in our competition challenges. You do not need any additional software to read the picoPrimer or solve the challenges at the end of each chapter.

Start picoPrimer

picoGym

picoGym is a noncompetitive practice space where you can explore and solve challenges from previously released picoCTF competitions, find fresh never before revealed challenges, and build a knowledge base of cybersecurity skills in a safe environment.

Whether you are a cybersecurity professional, competitive hacker or new to CTFs you will find interesting challenges in the picoGym that you can solve at your own pace. Team picoCTF will regularly update this challenge repository so visit the picoGym often.

Practice in the picoGym

GETTING STARTED AT PICO

GET STARTED

Practice

Practice your skills with challenges from previous competitions in the picoGym. Most problems from each competition will be added to the picoGym when the competition finishes.

GET STARTED

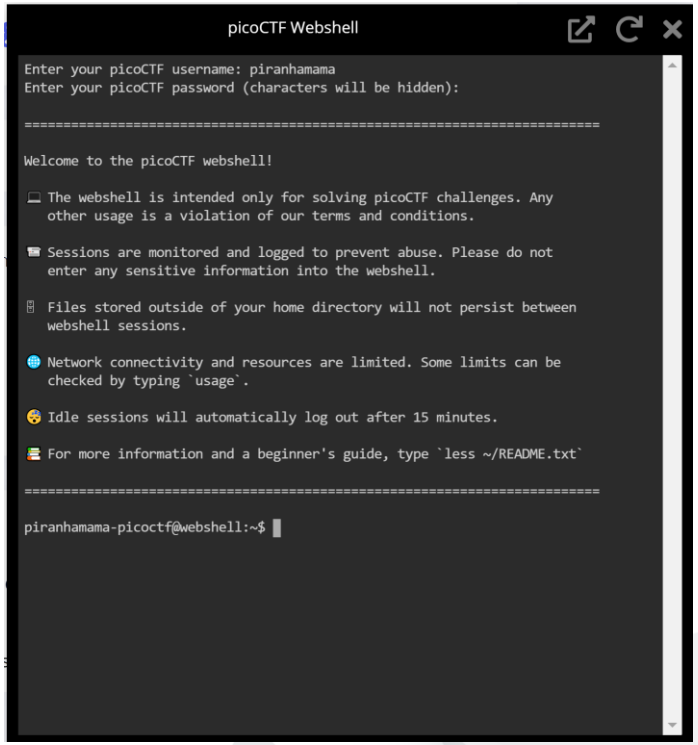
Compete

You must register for each competition with updated information to play new challenges and be eligible for prizes. Most competitions will have classroom and team features.

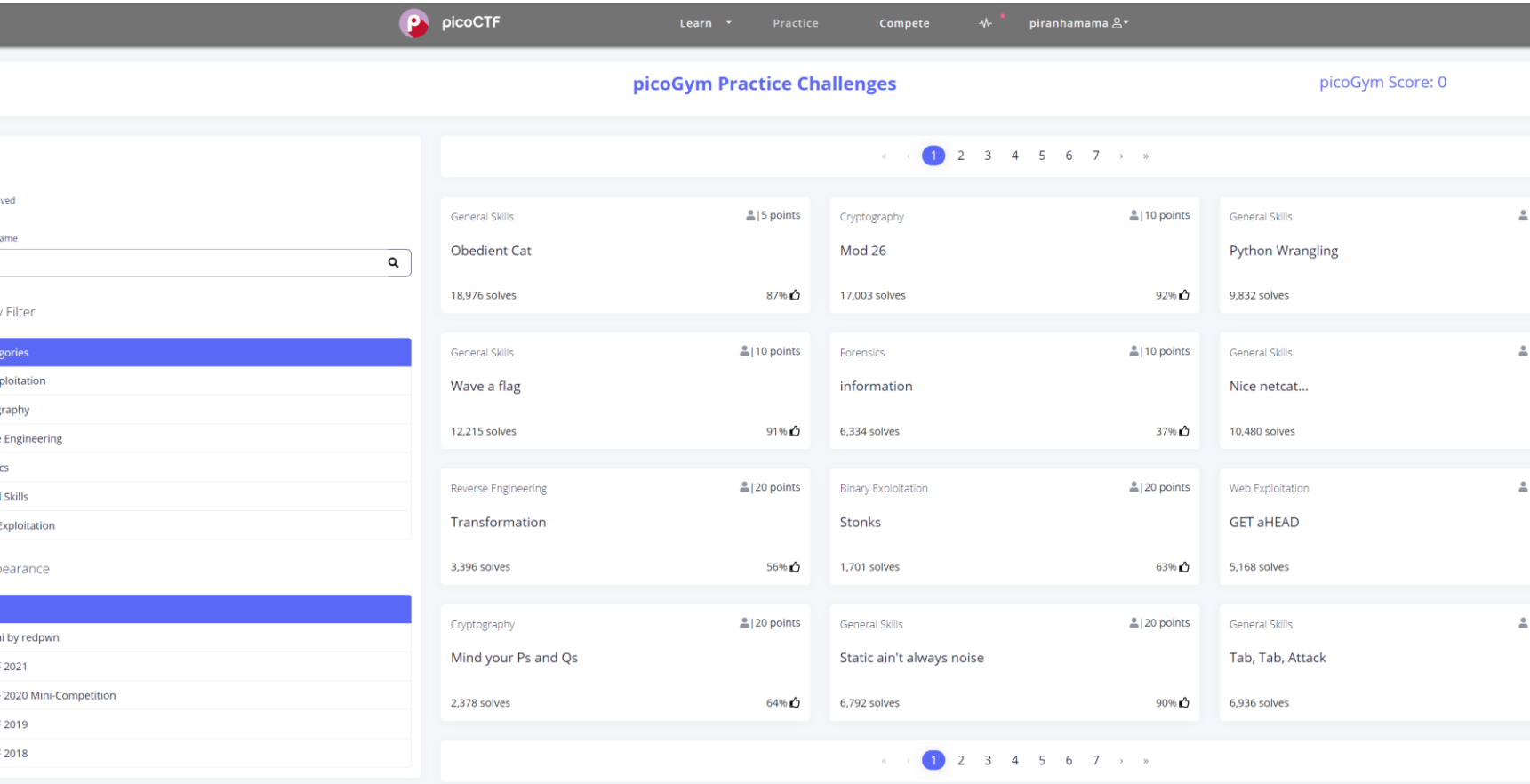
GET STARTED

Webshell

Use our webshell to access various tools to solve challenges in Linux, right from your browser. Read more about the shell.



GETTING STARTED AT PICO



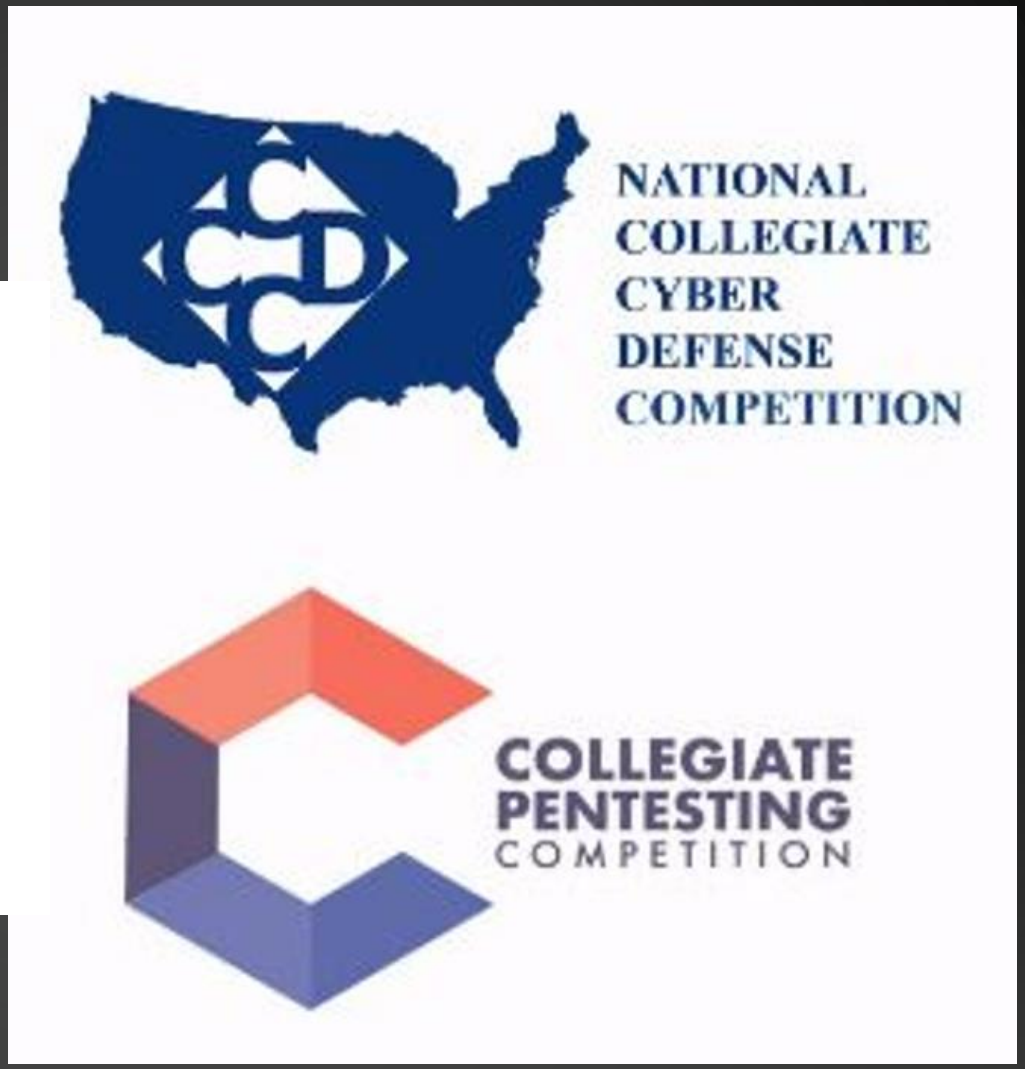
https://www.facebook.com/picoctf.competition

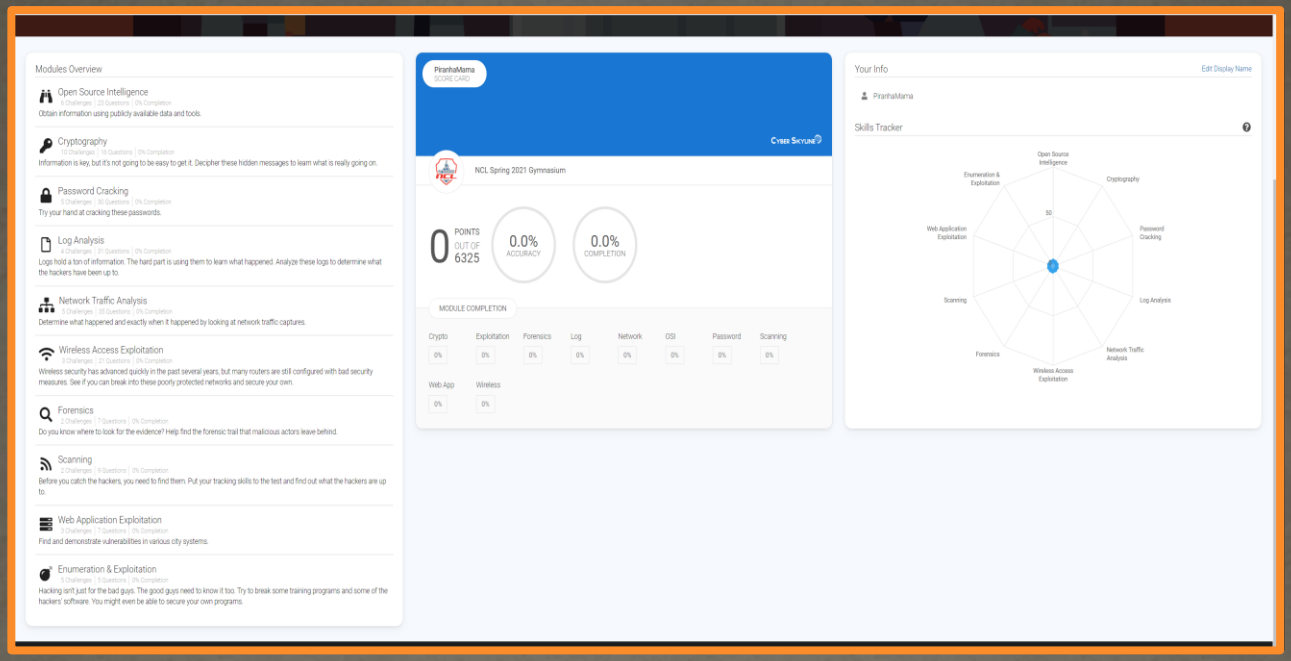
https://twitter.com/picoctf

https://discord.com/invite/WQGdYaB

NATIONAL CYBERSECURITY COMPETITIONS

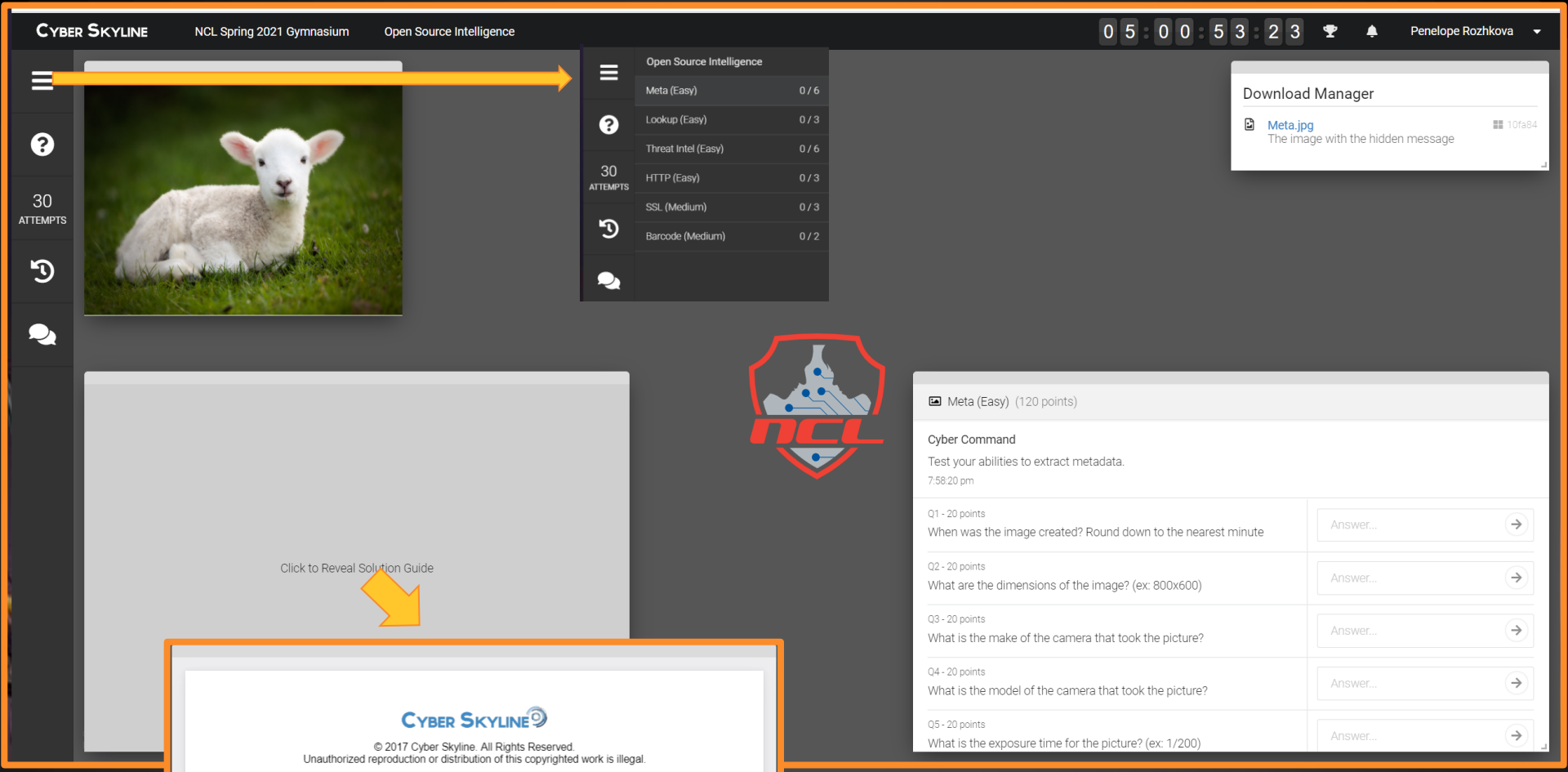

NCL


NATIONAL
COLLEGIATE
CYBER
DEFENSE
COMPETITION
COLLEGIATE
PENTESTING
COMPETITION



POWERED BY CYBER SKYLINE

NATIONAL CYBER LEAGUE – INSIDE THE GYMNASIUM



NATIONAL CYBER LEAGUE – INSIDE THE GYMNASIUM

https://cyberskyline.com/module/5fd7e2b3f3f4066d81589913/58755b0418592673927cdd8f/58755cf818592673927cdf9a

NCL SCOUTING REPORT

https://nationalcyberleague.org/scoutingreport

POWERED BY CYBER SKYLINE

The National Cyber League
Where Cybersecurity is a Passion

Student Player
student@nationalcyberleague.org

NCL Scouting Report

What follows is a customized NCL Scouting Report of your performance in the NCL Individual Game. We hope you find it to be valuable in both confirming your skills and identifying areas for improvement. In addition, the NCL Scouting Report can be used as part of any job application, as it provides an external validation of skills as demonstrated in competitive gameplay based on industry-recognized certification exam and framework objectives.

The following definitions apply to your performance across a range of cybersecurity scenarios

- **National Rank:** overall place with respect to all players, across all Brackets
- **Bracket Rank:** overall place within the Bracket
- **Performance Score:** total points earned; the higher the score, the higher the ranking
- **Accuracy:** percentage of flag submissions that were correct (total flag captures divided by total flag attempts).
- **Completion:** percentage of possible flags submitted (total flag captures divided by total possible flags).

The following are the categories of cybersecurity scenarios that you were evaluated against:

1. **Cryptography**
   Identify techniques used to encrypt or obfuscate messages and leverage tools to extract the plaintext.
2. **Enumeration and Exploitation**
   Identify actionable exploits and vulnerabilities and use them to bypass the security measures in code and compiled binaries.
3. **Log Analysis**
   Utilize the proper tools and techniques to establish a baseline for normal operation and identify malicious activities using log files from various services.
4. **Network Traffic Analysis**
   Identify malicious and benign network traffic to demonstrate an understanding of potential security breaches.
5. **Open Source Intelligence**
   Utilize publicly available information such as search engines, public repositories, social media, and more to gain in-depth knowledge on a topic or target.
6. **Password Cracking**
   Identify types of password hashes and apply various techniques to efficiently determine plaintext passwords.
7. **Scanning**
   Identify and use the proper tools to gain intelligence about a target including its services and potential vulnerabilities.
8. **Web Application Exploitation**
   Identify actionable exploits and vulnerabilities and use them to bypass the security measures in online services.
9. **Wireless Access Exploitation**
   Identify the security posture of wireless networks from network captures.

NCL Preseason

2ND PLACE OUT OF 5379
NATIONAL RANK

1760 POINTS OUT OF 1760
PERFORMANCE SCORE

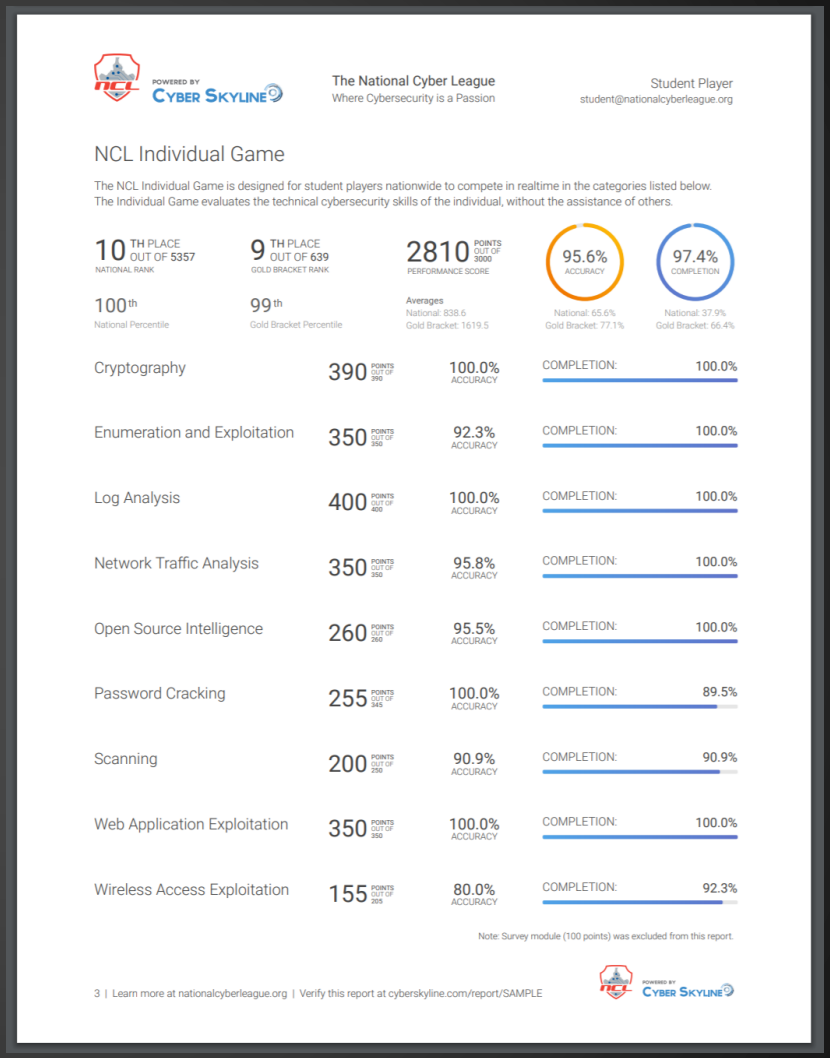
96.1% ACCURACY
National: 59.7%

100.0% COMPLETION
National: 49.0%

100th
National Percentile

Averages
National: 621.6

Based on Preseason performance, **Student Player** was placed into the **Gold Bracket** for the Individual Game.



POWERED BY CYBER SKYLINE

The National Cyber League
Where Cybersecurity is a Passion

Student Player
student@nationalcyberleague.org

NCL Individual Game

The NCL Individual Game is designed for student players nationwide to compete in realtime in the categories listed below. The Individual Game evaluates the technical cybersecurity skills of the individual, without the assistance of others.

10TH PLACE OUT OF 5357
NATIONAL RANK

9TH PLACE OUT OF 639
GOLD BRACKET RANK

2810 POINTS OUT OF 3000
PERFORMANCE SCORE

95.6% ACCURACY
National: 65.6%
Gold Bracket: 77.1%

97.4% COMPLETION
National: 37.9%
Gold Bracket: 66.4%

100th
National Percentile

99th
Gold Bracket Percentile

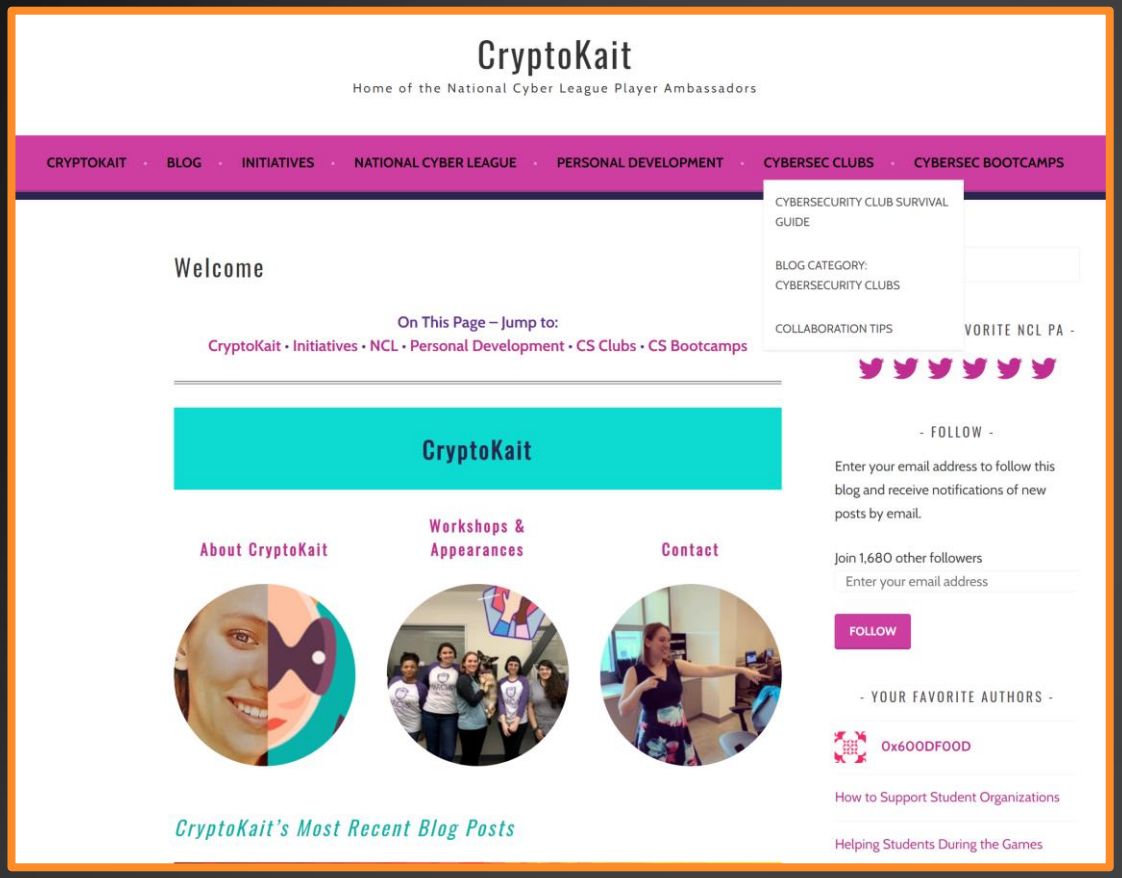
Averages
National: 838.6
Gold Bracket: 1619.5

Cryptography	390 POINTS OUT OF 390	100.0% ACCURACY	COMPLETION: 100.0%
Enumeration and Exploitation	350 POINTS OUT OF 350	92.3% ACCURACY	COMPLETION: 100.0%
Log Analysis	400 POINTS OUT OF 400	100.0% ACCURACY	COMPLETION: 100.0%
Network Traffic Analysis	350 POINTS OUT OF 350	95.8% ACCURACY	COMPLETION: 100.0%
Open Source Intelligence	260 POINTS OUT OF 260	95.5% ACCURACY	COMPLETION: 100.0%
Password Cracking	255 POINTS OUT OF 345	100.0% ACCURACY	COMPLETION: 89.5%
Scanning	200 POINTS OUT OF 250	90.9% ACCURACY	COMPLETION: 90.9%
Web Application Exploitation	350 POINTS OUT OF 350	100.0% ACCURACY	COMPLETION: 100.0%
Wireless Access Exploitation	155 POINTS OUT OF 205	80.0% ACCURACY	COMPLETION: 92.3%

Note: Survey module (100 points) was excluded from this report.

https://static1.squarespace.com/static/5e13a4b584a68c775e362068/t/5f3c5888533a540ce85da2c0/1597790354053/NEW+Spring+2020+Sample+Scouting+Report.pdf

WHERE TO FIND OUT MORE ABOUT NCL



https://cryptokait.com/

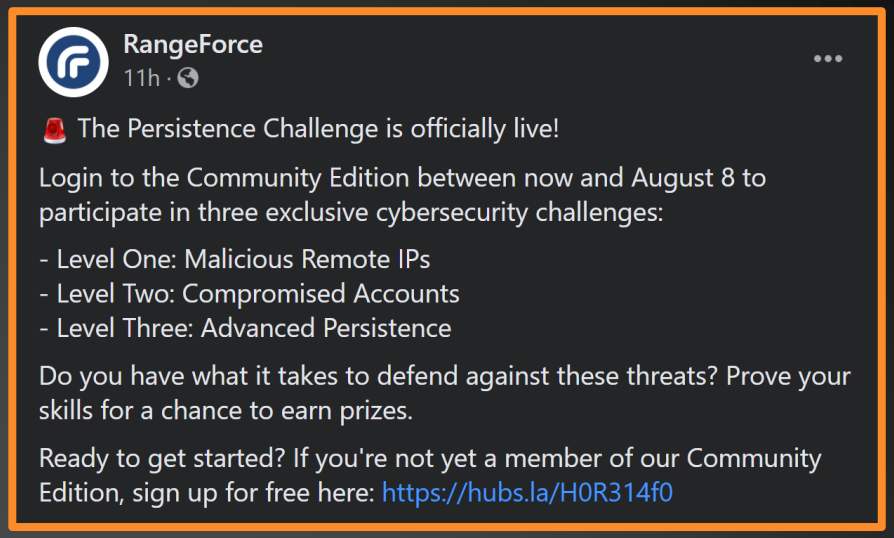
Cost:
$35 per person each semester.

UPPING YOUR GAME –

PROFESSIONAL DEVELOPMENT

BLUE TEAM

In a Blue Team CTF platform, you attempt to harden systems to prevent compromises to find flags.



Participate in the Persistence Challenge by logging in to the RangeForce Community Edition platform between July 21st and August 8th.

SECURE CODE WARRIOR

Tournaments | Training | Courses | Assessments | Resources

Identify Solution

Determine the correct fix from a number of different proposed solutions for the vulnerability listed below. These solutions will be full code repositories, where completely different approaches may have been taken to address the problem.

Vulnerability Category

Injection Flaws - SQL Injection

This is the vulnerability you are trying to identify the correct solution for.

Continue

VIEW SOLUTIONS

Personalize your content by sharing your preferences

Preferred development language(s) at work?

C Basic | C++ Basic | Objective-C iOS SDK | PHP Basic | PHP Symfony | Java Basic | Java Spring | Java Enterprise Edition (JSP) | Java Enterprise Edition (JSF) | Java Servlets | Java Enterprise Edition API | Java Spring API | Java Android SDK | JavaScript Node.js (Express) | JavaScript Node.js API | Python Basic | Python Django | Python Flask | Python API | C# (.NET) Basic | C# (.NET) Web API | C# (.NET) MVC | C# (.NET) Web Forms | C# (.NET) Core | Ruby Rails | Scala Play | Swift iOS SDK | Kotlin Android SDK | Kotlin Spring API | JavaScript Basic | JavaScript Angular.io (2+) | JavaScript React | JavaScript Vue.js | JavaScript React Native | PL/SQL Basic | COBOL Basic | GO Basic | GO API | Pseudocode Basic | Pseudocode Mobile | Terraform Basic | Ansible Basic | Docker Basic | CloudFormation Basic | Kubernetes Basic | Rust Basic | Perl Dancer2 | PowerShell Basic | Salesforce Apex | TypeScript Basic | Bash Basic | COBOL Mainframe | RPG Basic | Show less

SKIP FOR NOW | SAVE CHANGES

Active Missions

Level 1: A cyber-criminal from Botswana is attacking the Longitude Financial application — View

Level 2: A Hacker from Niger is attacking the Energy Blue application — View

Level 3: A cyber-criminal from Canada is attacking the Solar Electric application — View

Level 4: A state-sponsored adversary from Mexico is attacking the Longitude Financial application — View

Level 5: A state-sponsored adversary from China is attacking the Energy Blue application — View

Level 6: A Hacker from Germany is attacking the World Bank application — View

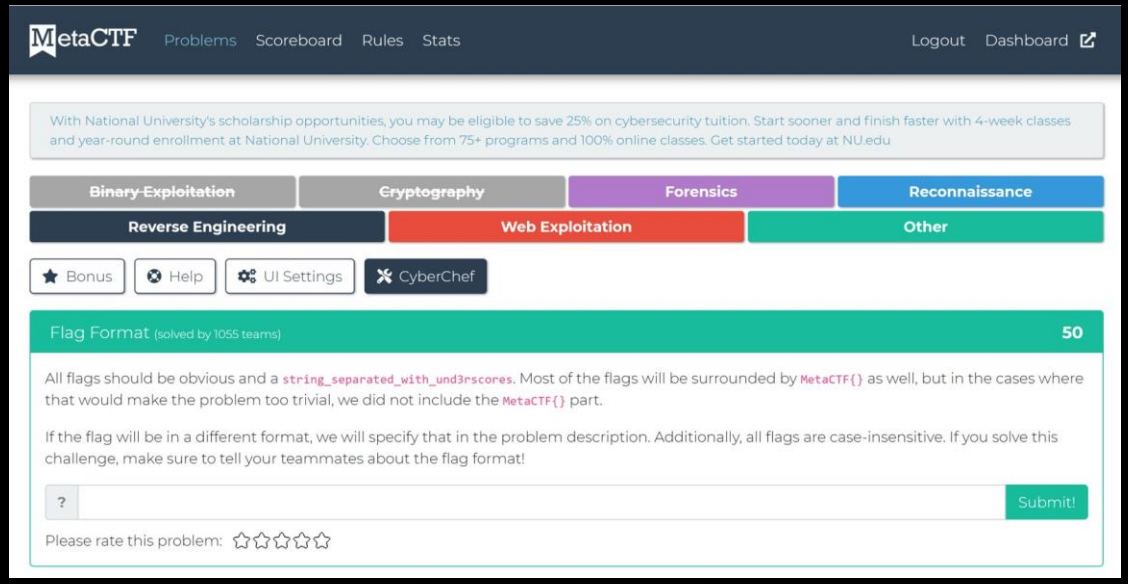
Level 7: A Hacktivist from Italy is attacking the Hot Deals application — View

Level 8: A Hacker from France is attacking the World Bank application — View

BHIS ANTISYPHON CYBER RANGE

Getting Started with Base64 Encoding and Decoding

https://www.youtube.com/watch?v=TzG_iflIiig



In the BHIS Antisyphon range, every question either has a very heavy hint or a direct link to a short training video, blog or webcast covering the technique needed to solve the challenge.

$30/month

Because we have built-in tutorials and hints, many can start with little to no experience.

Currently, there are over 127 questions covering topics like Web, Recon, Pentesting, Forensics, Crypto, Reverse Engineering, and Threat Hunting. **https://www.blackhillsinfosec.com/services/cyber-range/**

Try Hack Me

Dashboard Learn Compete Other

0 Go Premium

King of the Hill Beta

Be the first to hack into a machine, and then retain your presence by patching vulnerabilities to stop your foes from taking your position!

Attack then defend!

https://tryhackme.com/games/koth

About

King of the Hill (KoTH) is a competitive hacking game, where you play against 10 other hackers to compromise a machine and then patch its vulnerabilities to stop other players from also gaining access. The longer you maintain your access, the more points you get.

> King of the Hill is now **free** to play!

HACKER BUSINESS UNIVERSITY

HACKTHEBOX Products Resources Company

https://www.hackthebox.eu/

NEW HTB Business CTF: A hacking competition for companies | £20,000 worth of prizes!

A Massive Hacking Playground

Cyber Training Gamified

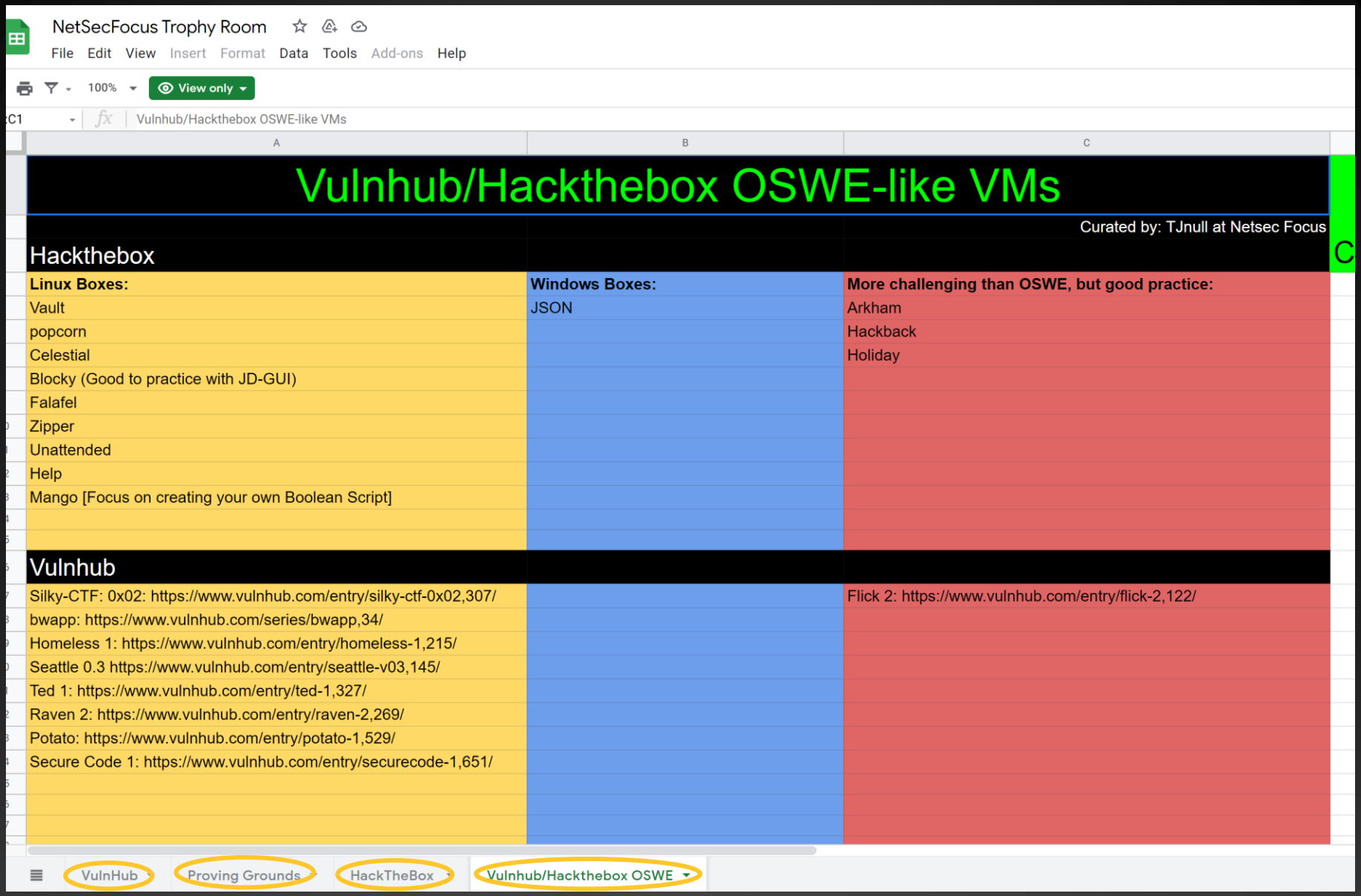
Training needs to be fun. Points, badges, first blood, multiplayer battles, progress bars, “Hall of Fame” scoreboards, ranks, teams, and more!

Hack The Box OSCP-like VMs

Curated by: TJnull at Netsec Focus

Linux Boxes:	Windows Boxes:	More challenging than OSCP, but good practice:
Lame	legacy	Jeeves [Windows]
brainfuck	Blue	Bart [Windows]
shocker	Devel	Tally [Windows]
bashed	Optimum	Active [Windows]
nibbles	Bastard	Jail [Linux]
beep	granny	falafel [Linux]
cronos	Arctic	Devops [Linux]
nineveh	grandpa	Hawk [Linux]
sense	silo	Netmon [Windows]
solidstate	bounty	Lightweight [Linux]
kotarak	jerry	La Casa De Papel [Linux]
node	conceal	
valentine		
poison		
sunday		
tartarsauce		
Irked		
Friendzone		

https://pbs.twimg.com/media/ECG-gPnW4AMs32A.jpg:large



https://docs.google.com/spreadsheets/d/1dwSMIAPIam0PuRBkCiDI88pU3yzrqqHkDtBngUHNCw8/edit#gid=665299979

https://go.cyberstart.com/

Train as you play in our immersive cyber security learning experience

Non-traditional learning

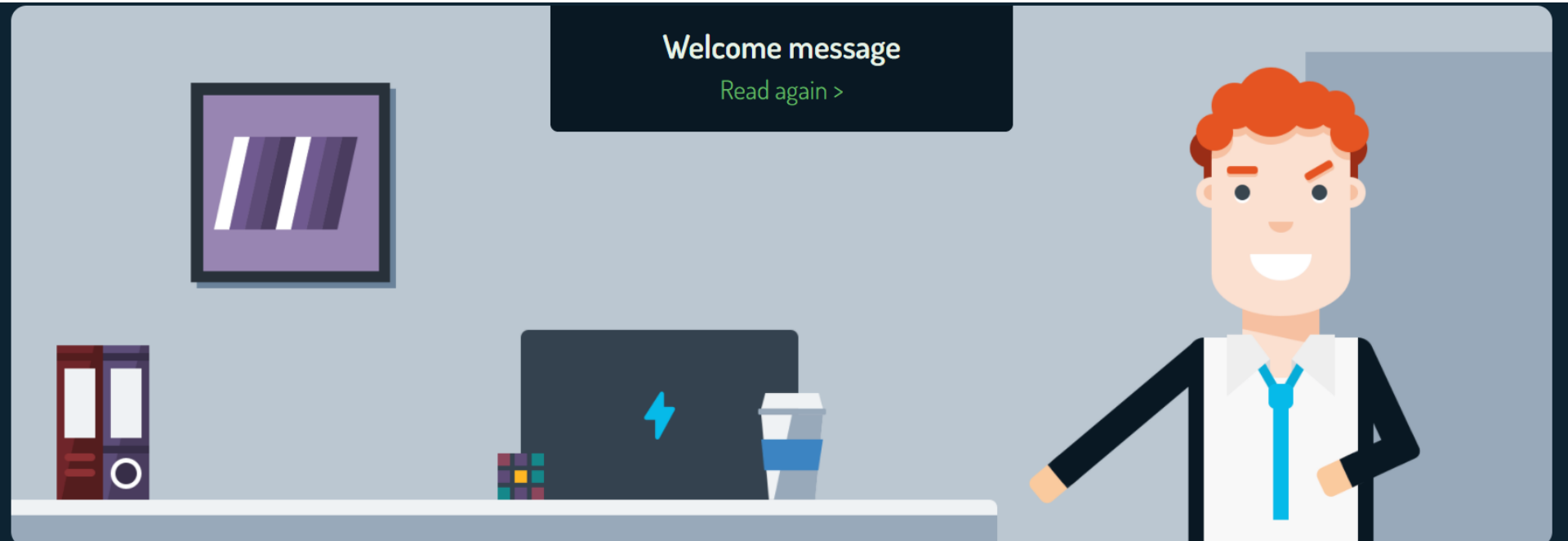
No textbooks or lectures, just fun, online challenges that build towards highly respected academic outcomes.

Beginner-friendly

A carefully curated syllabus, designed to gently onboard and progressively challenge you.

Transferrable skills

We help you build a portfolio of transferrable skills recognised and desired by employers.



Fun scenarios

You will become an agent for the virtual Cyber Protection Agency and investigate criminal gangs who are using their cyber skills to do damage online. You'll have to use various defensive tactics to thwart these cyber criminals' attempts.

Four distinct bases

Tackle cyber-criminal gangs in HQ by solving puzzles and using cyber security skills like binary reversing, SQL Injection and XSS.

More about the bases

Agent profile and badges

All users get their own agent profile, complete with dozens of badges to collect and share with your friends as you work your way through the challenges.

Progressive difficulty

CyberStart features over 200 interactive security challenges ranging from simple through to extreme. The huge breadth of topics covered and easy to follow platform, helps get beginners started and fast-track those with a hidden talent.

Progress tracking

Track your progress through CyberStart with points and badges. With over 200 hours of cyber security training material and games, it is important to visualise your learning journey.

Helpful Field Manual

For those looking for more traditional learning support when completing the challenges, CyberStart also features an extensive 'field manual', with write-ups, video demos and interactive quizzes.

From: Agent J

Hello agent, I am thrilled to welcome you to the Cyber Protection Agency (CPA) - the number one place to sharpen and develop your cyber security knowledge!

At the CPA our job is to stop fearsome gangs of cyber criminals and prevent organisations from being attacked. As your mentor, it is my job to perfect your skills in a variety of security disciplines and help you progress through the agency.

As a junior agent you have access to 4 bases: the Headquarters Base, the Moon Base, the Forensics Base and the Volcano Base.

The HQ Base will see you tackle various cyber criminal gangs - gathering information about them, cracking codes, finding security flaws and dissecting their digital trail. On the Moon Base is where you'll learn to program in Python, using your own code editor to execute and run code, gradually picking up all the skills you will need to write your own programs. At the Forensics Base, you'll be working under Agent S to help tackle a variety of interesting forensics cases from all over the world. Finally, in the Volcano Base, it's time to put your training to the test. Agent J has a collection of missions for you in real environments where you can find flaws for organisations to fix and report them before the bad guys!

As you complete the challenges in each base more levels will unlock, earning you points, badges and promotions.

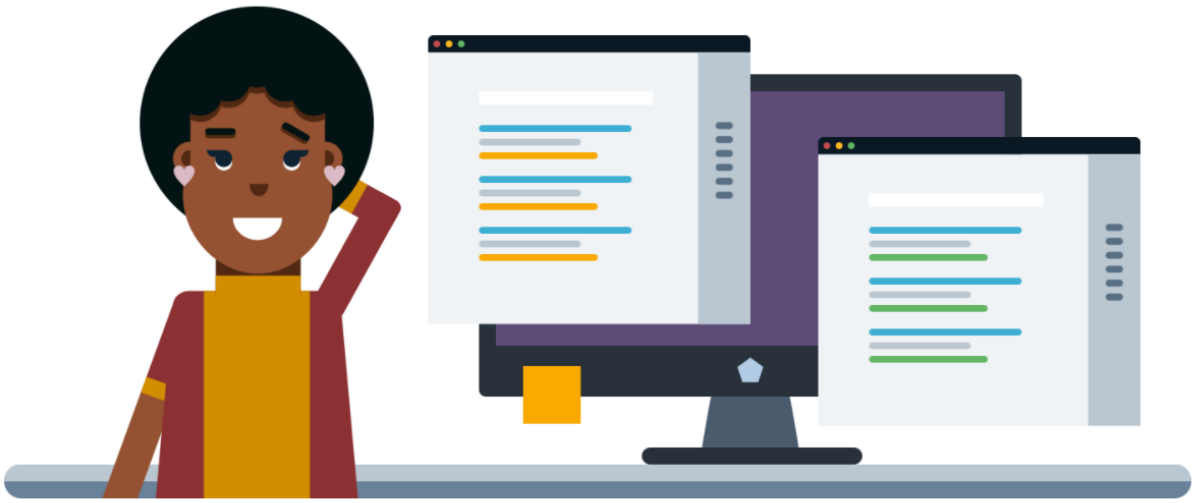
Before we let you dive in, there are a few important things that will help you to progress:

Briefing - When you approach each challenge take time to read the briefing; they will often help you to understand the process you should follow on a challenge.

Flags - When you tackle each challenge you're looking for something called a 'flag'. This is simply a code which you need to put into the box on the top left of the Toolbox on the challenge page and hit enter. If you get it right, you'll see a 'success' message and you'll be able to move on to the next challenge.

Field manual - On the bases page you will find a field manual. This is packed full of tips and tricks that will help with challenges. The manual covers all the basics that you need to know during your time at the CPA. Topics include Linux, programming, web attacks, cryptography and forensics.

Hints - At the bottom left of each challenge you'll see a link that says, 'See a hint'. If you're stuck, make sure to use these, they're a great way to keep moving.



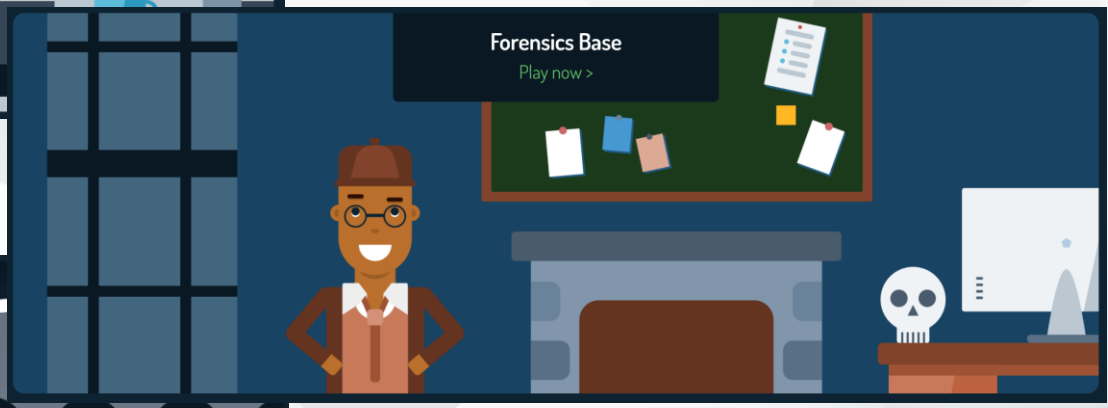
Search engines - It is absolutely not cheating to jump on to a search engine and try to find more information about a tool or technique. In fact, that is simply being a great security practitioner!

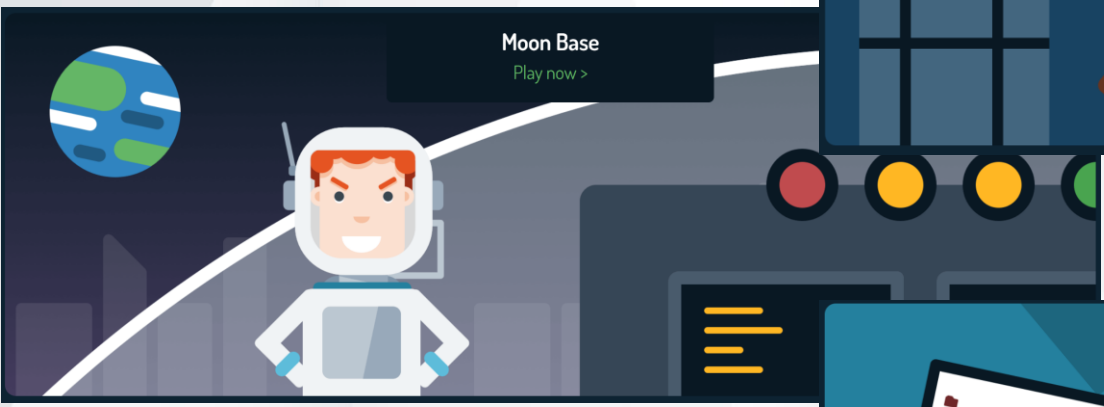
Ethics - It is important, as you develop your security skills, that you use your skills ethically and only hack the targets the game instructs you to. You should ensure you are following local laws and have written consent from the owner of a target. Just because you can hack something doesn't mean you have permission to do so! If you are unsure at any point please contact support@joincyberstart.com.

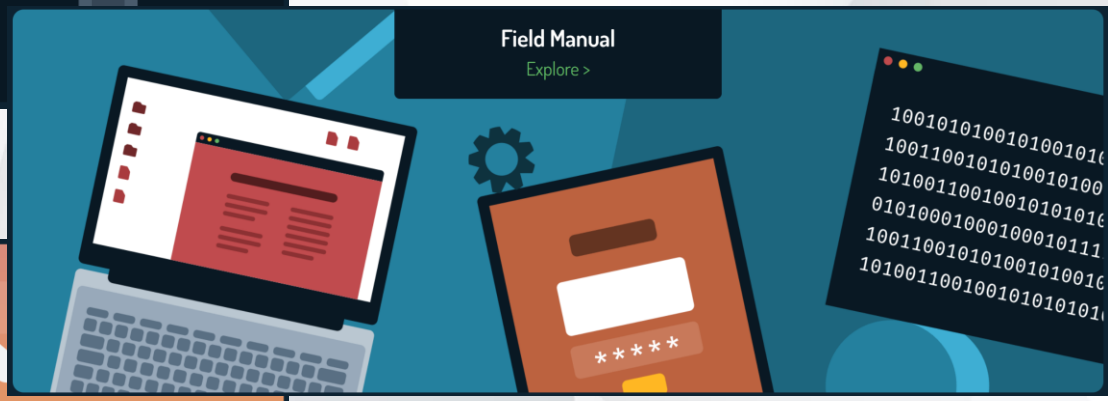
Virtual machine - The first five levels of CyberStart Game can be run on a modern web browser e.g the latest version of Chrome or Firefox. However, when you reach level six of the HQ, many of the challenges require you to play the game from inside a virtual machine (VM) provided by CyberStart. You can view instructions on how to set up your VM here.

Badges - Whilst completing challenges you can also collect badges. These include the 'speedster' badge, awarded if you complete a challenge in under 30 seconds, and 'shell surfer', awarded if you can complete a challenge which uses SSH. Your badge collection can be found on your profile page.


Headquarters Base
Play now >


Forensics Base
Play now >


Moon Base
Play now >


Field Manual
Explore >


Volcano Base
This base is locked

Remember, the best cyber security professionals are impatient enough to try lots of things at once, patient enough to diligently figure out problems and creative enough to find new approaches to solve challenges!

Good luck agent.

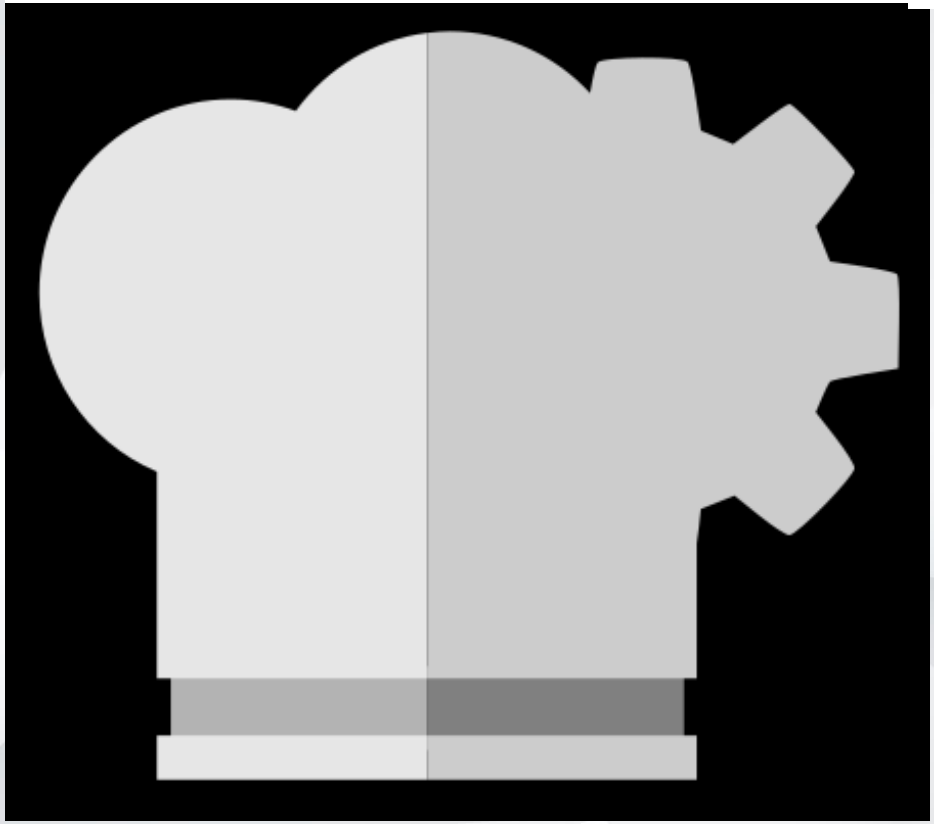
Agent J

Tokens should be valid for 90 days from activation.

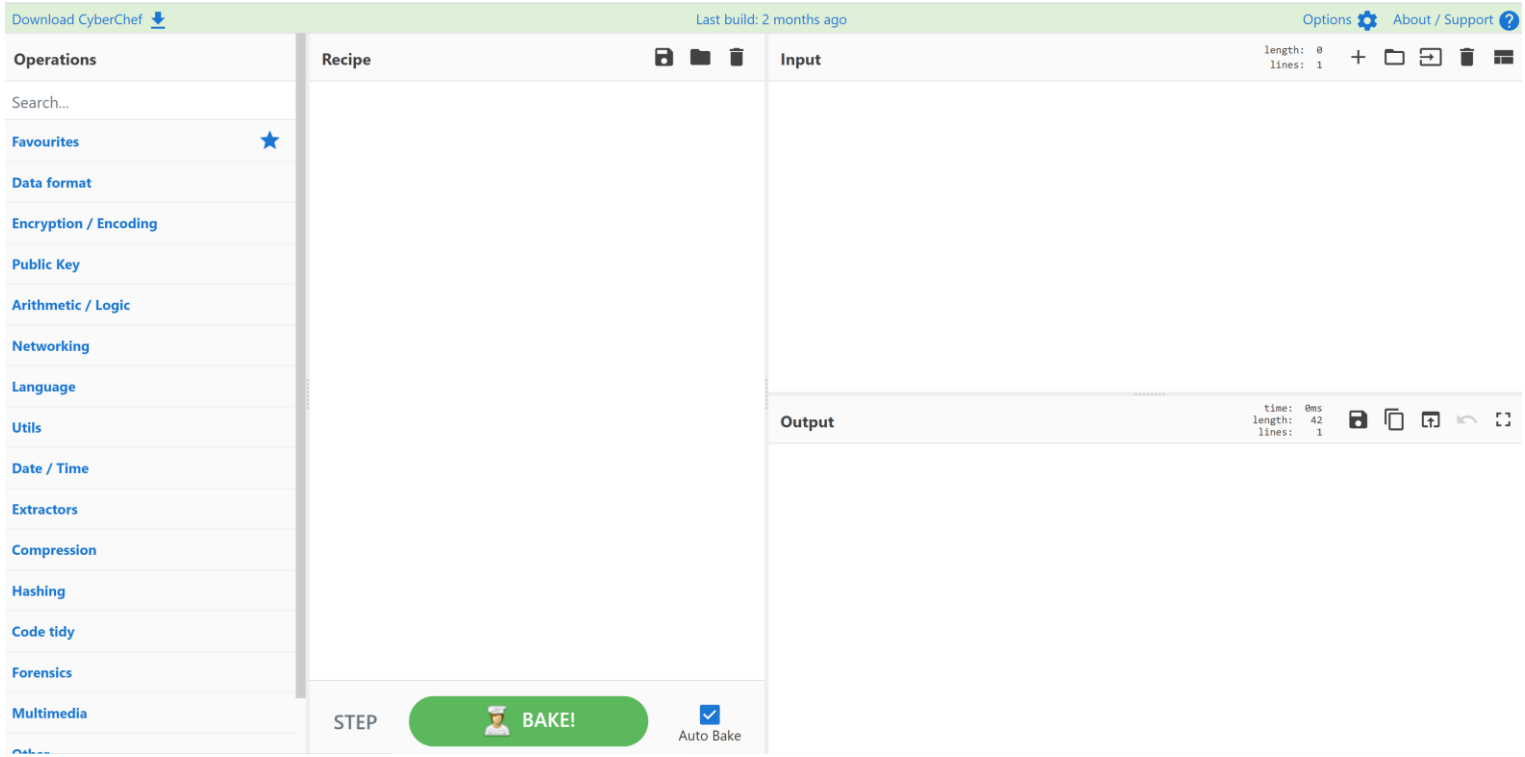
WALK-THROUGH

with

CyberChef & CTFLEARN



CYBERCHEF THE CYBER SWISS ARMY KNIFE



https://gchq.github.io/CyberChef/

CTF TOOLS

- https://gchq.github.io/CyberChef/
- https://cryptii.com/
- http://rumkin.com/tools/cipher/
- https://www.dcode.fr/cipher-identifiery
- https://futureboy.us/stegano/decinput.html
- https://stylesuxx.github.io/steganography/
- http://diit.sourceforge.net/Hash Analyzer
- https://www.tunnelsup.com/hash-analyzer/ketnalysis
- https://www.wireshark.org/

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- http://diit.sourceforge.net/Hash Analyzer
- https://www.tunnelsup.com/hash-analyzer/ketnalysis
- https://www.wireshark.org/

Bio

- Independent Contractor
- MUTC CyberAcademy Grad
- WiCyS Mentor
- CyberPatriot Coach
- BHIS Nerd Herder
- GenCyber Instructor

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#codehedgehogs

REFERENCES & RESOURCES

Upcoming CTF Events
https://ctftime.org/event/list/upcoming

picoCTF: Carnegie Mellon University Cybersecurity Competition
Getting Started with PICO CTF
https://picoctf.org/get_started.html
John Hammond video - https://www.youtube.com/watch?v=x-qaeuw74WE&list=PL1H1sBF1VAKVTu-v1XcJV9VVdhEEALvkY

PICO CTF social media accounts
https://www.facebook.com/picoctf.competition
https://twitter.com/picoctf
https://discord.com/invite/WQGdYaB

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CTFLEARN
https://ctflearn.com
Write-up -- https://deskel.github.io/ctflearn/

SANS CyberStart
CyberStart (paid cyber range) --
https://hub.joincyberstart.com/entry/sign-up
CyberStartGo - Free 60-minute instance --
https://go.cyberstart.com/
CyberStartAmerica - Free for High School Students --
https://www.cyberstartamerica.org/

CTF Unplugged: Offline Competition -
https://dl.acm.org/doi/10.1145/3017680.3017783

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Hackathon Definition --
https://en.wikipedia.org/wiki/Hackathon

What's a CTF videos --
https://www.youtube.com/watch?v=c92Cnb9_RSc&t=66s
https://www.youtube.com/watch?v=bxt-JidP3bU

Jeopardy Style CTFs
Malice - https://malice.fr/en/jeopardy
MetaCTF - https://metactf.com/cybergames

SANS interactive holiday CTF
https://2020.kringlecon.com/

Red vs Blue
Blog Post --
https://medium.com/@redteamvillage/red-team-vs-blue-team-ctf-c0c0n-2019-44fcb42fbd46

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Red Team

Red Team Village -- https://redteamvillage.org/
Web App Exploitation -- https://cmdnctrl.net/ranges
TryHackMe -- https://tryhackme.com/
Hack the Box -- https://ctf.hackthebox.eu/
https://alternativeto.net/software/tryhackme/

Blue Team

SOC cyber range -- https://go.rangeforce.com/community-soc-challenge-ce
Twitch channel --
https://www.twitch.tv/blueteamvillage

Hack-a-thons

https://www.rasmussen.edu/degrees/technology/blog/what-is-a-hackathon/
https://www.hackerearth.com/challenges/?filters=competitive%2Chiring

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National Cyber League/CyberSkyline
https://nationalcyberleague.org/
https://cyberskyline.com/
Sample Scouting Report - https://static1.squarespace.com/static/5e13a4b584a68c775e362068/t/5f3c5888533a540ce85da2c0/1597790354053/NEW+Spring+2020+Sample+Scouting+Report.pdf
NCL Ambassadors' Blog Posts - https://cryptokait.com/

Hack-a-thons:
https://www.rasmussen.edu/degrees/technology/blog/what-is-a-hackathon/
https://www.hackerearth.com/challenges/?filters=competitive%2Chiring

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CTF TOOLS:

Beginner's Guide -- https://code.likeagirl.io/ctf-beginner-guide-by-a-beginner-3c86e4959fcc

CTF Field Guide -- https://trailofbits.github.io/ctf/

Beginner CTF Training -- https://sites.google.com/view/beginnercapturethefla gctf/home?authuser=0

List of Tools -- https://int0x33.medium.com/day-18-essential-ctf-tools-1f9af1552214

CyberChef -- https://gchq.github.io/CyberChef/

Hash Analyzer -- https://www.tunnelsup.com/hash-analyzer/

Packet Analysis -- https://www.wireshark.org/

Setting up a Virtual Machine:

Blog -- https://hurricanelabs.com/blog/setting-up-a-virtual-machine-for-your-ctf-toolbox/

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https://www.simonsingh.net/The_Black_Chamber/index.html
https://cryptii.com/
http://rumkin.com/tools/cipher/
https://www.dcode.fr/cipher-identifier
https://www.cryptogram.org/resource-area/cipher-types/
https://www.instructables.com/Best-Codes/
https://www.instructables.com/Best-Codes-2/

Stegonagraphy Tools:

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https://stylesuxx.github.io/steganography/
http://diit.sourceforge.net/

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Blog-
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Spreadsheet OSCP and OSWE-
https://docs.google.com/spreadsheets/d/1dwSMIAPIam0PuRBkCiDI88pU3yzrqqHkDtBngUHNCw8/edit#gid=0

OSCP List-
https://pbs.twimg.com/media/ECG-gPnW4AMs32A.jpg:large