Thomas Weis
thomasweis27@gmail.com

NCL Spring 2024 Individual Game Scouting Report

Dear Thomas Weis,

Thank you for participating in the National Cyber League (NCL) Spring 2024 Season! Our goal is to prepare the next generation of cybersecurity professionals, and your participation is helping achieve that goal.

The NCL was founded in May 2011 to provide an ongoing virtual training ground for collegiate students to develop, practice, and validate their cybersecurity skills in preparation for further learning, industry certifications, and career readiness. The NCL scenario-based challenges were designed around performance-based exam objectives of CompTIA certifications and are aligned to the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework published by the National Institute of Standards and Technology (NIST).

As you look to a future career in cybersecurity, we hope you find this report to be valuable in both validating skills and identifying areas for improvement across the nine NCL skills categories. You can use this NCL Scouting Report to:

- Validate your skills to employers in any job application or professional portfolio;
- Show case your achievements and strengths by including the Score Card view of your performance as part of your résumé or simply sharing the validation link so that others may view the detailed version of this report.

The NCL Spring 2024 Season had 8,020 students/players and 584 faculty/coaches from more than 480 two- and four-year schools & 240 high schools across all 50 U.S. states registered to play. The Individual Game Capture the Flag (CTF) event took place from April 5 through April 7. The Team Game CTF event took place from April 19 through April 21. The games were conducted in real-time for students across the country.

NCL is powered by Cyber Skyline's cloud-based skills evaluation platform. Cyber Skyline hosted the scenario-driven cybersecurity challenges for players to compete and track their progress in real-time.

To validate this report, please access: cyberskyline.com/report/1XJUQQJ9AGDE

Based on the performance detailed in this NCL Scouting Report, you have earned **1 hour** of Continuing Education Units (CEUs) as approved by CompTIA. You can learn more about the NCL - CompTIA alignment via nationalcyberleague.org/partners.

Congratulations for your participation in the NCL Spring 2024 Individual Game! We hope you will continue to develop your knowledge and skills and make meaningful contributions as part of the Information Security workforce!

Dr. David Zeichick
NCL Commissioner

POWERED BY CYBER SKYLINE

NATIONAL CYBER LEAGUE SCORE CARD

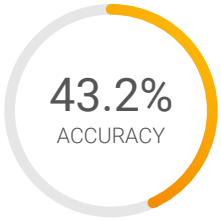
NCL SPRING 2024 INDIVIDUAL GAME

NATIONAL RANK
756TH PLACE OUT OF 7406

PERCENTILE
90TH

YOUR TOP CATEGORIES

PASSWORD CRACKING	FORENSICS	NETWORK TRAFFIC ANALYSIS
91ST PERCENTILE	90TH PERCENTILE	89TH PERCENTILE



Average: 67.4%

cyberskyline.com/report
ID: 1XJUQQJ9AGDE

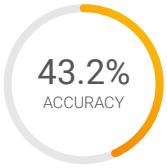
Thomas Weis
thomasweis27@gmail.com

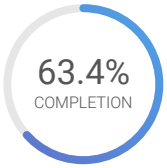
NCL Spring 2024 Individual Game

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.

756 TH PLACE OUT OF 7406
NATIONAL RANK

1585 POINTS OUT OF 3000
PERFORMANCE SCORE





90th National Percentile

Average: 948.1 Points

Average: 67.4%

Average: 37.5%

Cryptography

250 POINTS OUT OF 370

71.4% ACCURACY

COMPLETION: 71.4%

Identify techniques used to encrypt or obfuscate messages and leverage tools to extract the plaintext.

Enumeration & Exploitation

100 POINTS OUT OF 300

33.3% ACCURACY

COMPLETION: 40.0%

Identify actionable exploits and vulnerabilities and use them to bypass the security measures in code and compiled binaries.

Forensics

120 POINTS OUT OF 300

30.0% ACCURACY

COMPLETION: 37.5%

Utilize the proper tools and techniques to analyze, process, recover, and/or investigate digital evidence in a computer-related incident.

Log Analysis

180 POINTS OUT OF 300

37.5% ACCURACY

COMPLETION: 70.6%

Utilize the proper tools and techniques to establish a baseline for normal operation and identify malicious activities using log files from various services.

Network Traffic Analysis

170 POINTS OUT OF 300

21.2% ACCURACY

COMPLETION: 68.8%

Identify malicious and benign network traffic to demonstrate an understanding of potential security breaches.

Open Source Intelligence

310 POINTS OUT OF 430

48.7% ACCURACY

COMPLETION: 76.0%

Utilize publicly available information such as search engines, public repositories, social media, and more to gain in-depth knowledge on a topic or target.

Password Cracking

165 POINTS OUT OF 300

94.4% ACCURACY

COMPLETION: 65.4%

Identify types of password hashes and apply various techniques to efficiently determine plaintext passwords.

Scanning & Reconnaissance

110 POINTS OUT OF 300

60.0% ACCURACY

COMPLETION: 42.9%

Identify and use the proper tools to gain intelligence about a target including its services and potential vulnerabilities.

Web Application Exploitation

80 POINTS OUT OF 300

20.0% ACCURACY

COMPLETION: 40.0%

Identify actionable exploits and vulnerabilities and use them to bypass the security measures in online services.

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

Thomas Weis
thomasweis27@gmail.com

Cryptography Module

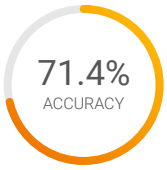
Identify techniques used to encrypt or obfuscate messages and leverage tools to extract the plaintext.

1236 TH PLACE OUT OF 7406
NATIONAL RANK

250 POINTS OUT OF 370
PERFORMANCE SCORE

84th National Percentile

Average: 184.5 Points



Average: 78.8%

Average: 57.6%

Bases (Easy)

40 POINTS OUT OF 40

100.0% ACCURACY

COMPLETION: 100.0%

Analyze and obtain the plaintext from messages encoded with common number bases

Ancient Cipher (Easy)

70 POINTS OUT OF 70

100.0% ACCURACY

COMPLETION: 100.0%

Analyze and obtain the plaintext for a message encrypted with the Atbash substitution cipher

Boxed In (Medium)

80 POINTS OUT OF 80

33.3% ACCURACY

COMPLETION: 100.0%

Analyze and obtain the plaintext for a message encrypted with a Box Cipher, a type of Transposition Cipher

Validation (Medium)

60 POINTS OUT OF 80

60.0% ACCURACY

COMPLETION: 75.0%

Analyze and decode a x509 certificate used for public key cryptography

Love's the AES (Hard)

0 POINTS OUT OF 100

0.0% ACCURACY

COMPLETION: 0.0%

Decrypt an AES-encrypted message by exploiting an insecure key generation method

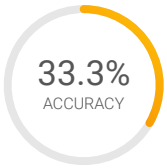
Thomas Weis
thomasweis27@gmail.com

Enumeration & Exploitation Module

Identify actionable exploits and vulnerabilities and use them to bypass the security measures in code and compiled binaries.

1983 RD PLACE OUT OF **7406**
NATIONAL RANK

100 POINTS OUT OF 300
PERFORMANCE SCORE



74th National Percentile

Average: 96.8 Points

Average: 74.6%

Average: 44.9%

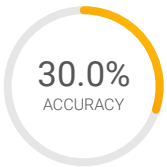
Key Check (Easy)	100 POINTS OUT OF 100	100.0% ACCURACY	COMPLETION: 100.0%
Analyze Python source code to exploit an insecurely-stored secret that uses a rotating XOR cipher			
Cross Lock (Medium)	0 POINTS OUT OF 100	0.0% ACCURACY	COMPLETION: 0.0%
Analyze a DotNET executable written in C# using decompilation tools to find a hardcoded secret			
High Alert (Hard)	0 POINTS OUT OF 100	0.0% ACCURACY	COMPLETION: 0.0%
Analyze and exploit a buffer overflow vulnerability in a binary application			

Forensics Module

Utilize the proper tools and techniques to analyze, process, recover, and/or investigate digital evidence in a computer-related incident.

747 TH PLACE OUT OF **7406**
NATIONAL RANK

120 POINTS OUT OF 300
PERFORMANCE SCORE



90th National Percentile

Average: 102.5 Points

Average: 49.6%

Average: 39.8%

Lost (Easy)	20 POINTS OUT OF 100	14.3% ACCURACY	COMPLETION: 33.3%
Utilize open-source forensics tools to extract a deleted JPEG image from an ext4 image			
Backdoor (Medium)	0 POINTS OUT OF 100	0.0% ACCURACY	COMPLETION: 0.0%
Perform a forensics analysis on a router's firmware image to investigate a backdoor			
Shuffled (Hard)	100 POINTS OUT OF 100	66.7% ACCURACY	COMPLETION: 100.0%
Analyze a PNG file and recalculate a CRC checksum to restore the file and retrieve lost information			

Thomas Weis
thomasweis27@gmail.com

Log Analysis Module

Utilize the proper tools and techniques to establish a baseline for normal operation and identify malicious activities using log files from various services.

915 TH PLACE OUT OF 7406
NATIONAL RANK

180 POINTS OUT OF 300
PERFORMANCE SCORE

37.5% ACCURACY
Average: 68.3%

70.6% COMPLETION
Average: 48.4%

88th National Percentile
Average: 123.4 Points

Entry (Easy)

100 POINTS OUT OF 100

75.0% ACCURACY

COMPLETION: 100.0%

Analyze a web access log to identify trends in traffic patterns

Places (Medium)

60 POINTS OUT OF 100

29.4% ACCURACY

COMPLETION: 62.5%

Analyze a SQLite database containing Internet browsing history to create a timeline of user actions

Buffed (Hard)

20 POINTS OUT OF 100

14.3% ACCURACY

COMPLETION: 33.3%

Parse a log of protobuf messages to extract key information

Network Traffic Analysis Module

Identify malicious and benign network traffic to demonstrate an understanding of potential security breaches.

848 TH PLACE OUT OF 7406
NATIONAL RANK

170 POINTS OUT OF 300
PERFORMANCE SCORE

21.2% ACCURACY
Average: 54.3%

68.8% COMPLETION
Average: 53.3%

89th National Percentile
Average: 138.2 Points

Shell (Easy)

100 POINTS OUT OF 100

35.3% ACCURACY

COMPLETION: 100.0%

Analyze network traffic on a compromised Telnet server to create an investigative report

Missing (Medium)

50 POINTS OUT OF 100

60.0% ACCURACY

COMPLETION: 75.0%

Identify and extract sensitive information that was exfiltrated from a computer network using UDP

Route (Hard)

20 POINTS OUT OF 100

6.7% ACCURACY

COMPLETION: 33.3%

Analyze a packet capture of routers exchanging OSPF information to create a report on the configuration of the network

Thomas Weis
thomasweis27@gmail.com

Open Source Intelligence Module

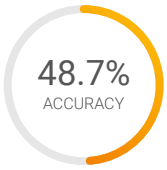
Utilize publicly available information such as search engines, public repositories, social media, and more to gain in-depth knowledge on a topic or target.

958 TH PLACE OUT OF 7406
NATIONAL RANK

88th National Percentile

310 POINTS OUT OF 430
PERFORMANCE SCORE

Average: 246.9 Points



Average: 67.9%

Average: 60.9%

Rules of Conduct (Easy)

30 POINTS OUT OF 30

100.0% ACCURACY

COMPLETION: 100.0%

Introductory challenge on acceptable conduct during NCL

Guess Who (Easy)

100 POINTS OUT OF 100

83.3% ACCURACY

COMPLETION: 100.0%

Identify and use basic OSINT tools to find public information of a given IP

Exit Node (Easy)

100 POINTS OUT OF 100

75.0% ACCURACY

COMPLETION: 100.0%

Search online databases to gather information on a Tor Exit Node

Stuck on The Net (Medium)

20 POINTS OUT OF 100

11.1% ACCURACY

COMPLETION: 20.0%

Utilize the Wayback Internet Archive Machine to view old data that is no longer available on the Internet

Plane (Hard)

60 POINTS OUT OF 100

30.8% ACCURACY

COMPLETION: 66.7%

Use publicly available open source tools to analyze the flight patterns of planes

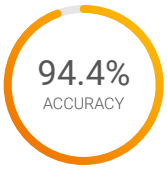
Thomas Weis
thomasweis27@gmail.com

Password Cracking Module

Identify types of password hashes and apply various techniques to efficiently determine plaintext passwords.

676 TH PLACE OUT OF 7406
NATIONAL RANK

165 POINTS OUT OF 300
PERFORMANCE SCORE



91st National Percentile

Average: 91.5 Points

Average: 88.0%

Average: 38.1%

Hashing (Easy) Generate password hashes for MD5, SHA1, and SHA256	15 POINTS OUT OF 15	75.0% ACCURACY	COMPLETION: 100.0%
Rockyou (Easy) Crack MD5 password hashes for password found in the rockyou breach	15 POINTS OUT OF 15	100.0% ACCURACY	COMPLETION: 100.0%
Windows (Easy) Crack Windows NTLM password hashes using rainbow tables	30 POINTS OUT OF 30	100.0% ACCURACY	COMPLETION: 100.0%
Pattern (Medium) Build a wordlist or pattern rule to crack password hashes of a known pattern	45 POINTS OUT OF 45	100.0% ACCURACY	COMPLETION: 100.0%
PDF (Medium) Crack the insecure password for a protected PDF file	0 POINTS OUT OF 50	0.0% ACCURACY	COMPLETION: 0.0%
Wordlist (Hard) Build a wordlist to crack passwords not found in common wordlists	30 POINTS OUT OF 75	100.0% ACCURACY	COMPLETION: 40.0%
Complexity (Hard) Build a custom wordlist to crack passwords by augmenting permutation rules using known password complexity requirements	30 POINTS OUT OF 70	100.0% ACCURACY	COMPLETION: 42.9%

Thomas Weis
thomasweis27@gmail.com

Scanning & Reconnaissance Module

Identify and use the proper tools to gain intelligence about a target including its services and potential vulnerabilities.

1278 TH PLACE OUT OF 7406
NATIONAL RANK

110 POINTS OUT OF 300
PERFORMANCE SCORE

60.0% ACCURACY

42.9% COMPLETION

83rd National Percentile

Average: 136.9 Points

Average: 66.6%

Average: 50.5%

Port Scan (Easy)

100 POINTS OUT OF 100

55.6% ACCURACY

COMPLETION: 100.0%

Perform a port scan and identify services running on a remote host

Foreign (Medium)

10 POINTS OUT OF 100

100.0% ACCURACY

COMPLETION: 20.0%

Conduct reconnaissance on a server to identify details regarding its timezone and locale

Snail Mail (Hard)

0 POINTS OUT OF 100

0.0% ACCURACY

COMPLETION: 0.0%

Scan an email server to enumerate user accounts

Web Application Exploitation Module

Identify actionable exploits and vulnerabilities and use them to bypass the security measures in online services.

1028 TH PLACE OUT OF 7406
NATIONAL RANK

80 POINTS OUT OF 300
PERFORMANCE SCORE

20.0% ACCURACY

40.0% COMPLETION

87th National Percentile

Average: 108.2 Points

Average: 53.3%

Average: 46.1%

PiratePals (Easy)

80 POINTS OUT OF 100

20.0% ACCURACY

COMPLETION: 66.7%

Analyze the source code of a web application and craft an HTTP request to conduct a malicious payload attack on the web server

Pierre's Store (Medium)

0 POINTS OUT OF 100

0.0% ACCURACY

COMPLETION: 0.0%

Perform a replay attack on a web application by using a HAR file to craft a web request

Valley Directory (Hard)

0 POINTS OUT OF 100

0.0% ACCURACY

COMPLETION: 0.0%

Analyze a web application and exploit a session puzzling vulnerability in a web application to gain unauthorized access