NCL Spring 2025 Individual Game Scouting Report

Dear Simon Chu,

Thank you for participating in the National Cyber League (NCL) Spring 2025 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 2025 Season had 9,216 students/players and 596 faculty/coaches from 510 two- and four-year schools & 288 high schools across all 50 U.S. states registered to play. The Individual Game Capture the Flag (CTF) event took place from April 11 through April 13. The Team Game CTF event took place from April 25 through April 27. 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/913QX1EW0QJ2

Based on the performance detailed in this NCL Scouting Report, you have earned **11 hours** 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 2025 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 2025 INDIVIDUAL GAME

NATIONAL RANK
507TH PLACE OUT OF 8573

PERCENTILE
95TH

YOUR TOP CATEGORIES

ENUMERATION & EXPLOITATION	WEB APPLICATION EXPLOITATION	CRYPTOGRAPHY
96TH PERCENTILE	95TH PERCENTILE	94TH PERCENTILE

54.9%
ACCURACY

Average: 66.8%

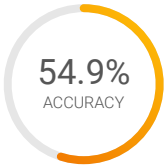
cyberskyline.com/report
ID: 913QX1EW0QJ2

NCL Spring 2025 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.

507 TH PLACE OUT OF 8573
NATIONAL RANK

2140 POINTS OUT OF 3000
PERFORMANCE SCORE



95th National Percentile

Average: 995.3 Points

Average: 66.8%

Average: 37.7%

Cryptography

260 POINTS OUT OF 385

40.5% ACCURACY

COMPLETION: **78.9%**

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

Enumeration & Exploitation

225 POINTS OUT OF 365

41.2% ACCURACY

COMPLETION: **73.7%**

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

Forensics

220 POINTS OUT OF 305

83.3% ACCURACY

COMPLETION: **71.4%**

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

Log Analysis

245 POINTS OUT OF 300

50.0% ACCURACY

COMPLETION: **88.2%**

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

52.9% ACCURACY

COMPLETION: **75.0%**

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

Open Source Intelligence

240 POINTS OUT OF 310

65.2% ACCURACY

COMPLETION: **83.3%**

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

250 POINTS OUT OF 335

73.7% ACCURACY

COMPLETION: **73.7%**

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

Scanning & Reconnaissance

220 POINTS OUT OF 300

92.9% ACCURACY

COMPLETION: **76.5%**

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

Web Application Exploitation

210 POINTS OUT OF 300

42.9% ACCURACY

COMPLETION: **66.7%**

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.

Cryptography Module

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

557 TH PLACE OUT OF 8573
NATIONAL RANK

260 POINTS OUT OF 385
PERFORMANCE SCORE

40.5% ACCURACY
Average: 65.0%

78.9% COMPLETION
Average: 44.2%

94th National Percentile
Average: 143.1 Points

The Bases (Easy)

45 POINTS OUT OF 45
75.0% ACCURACY
COMPLETION: 100.0%

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

Super Shifty (Easy)

55 POINTS OUT OF 55
33.3% ACCURACY
COMPLETION: 100.0%

Analyze and obtain the plaintext for a message encrypted with a shift cipher

Pizza Time (Easy)

0 POINTS OUT OF 50
0.0% ACCURACY
COMPLETION: 0.0%

Analyze and obtain the plaintext for a message encrypted with the rail fence cipher

Signed (Medium)

45 POINTS OUT OF 60
42.9% ACCURACY
COMPLETION: 75.0%

Identify tampered files by verifying PGP signatures

Altered Clouds (Medium)

55 POINTS OUT OF 55
100.0% ACCURACY
COMPLETION: 100.0%

Verify the integrity of files by computing HMAC values

Zugzwang (Medium)

0 POINTS OUT OF 60
0.0% ACCURACY
COMPLETION: 0.0%

Decode a hidden file by implementing a decoder for a custom encoding scheme

Kracken (Hard)

60 POINTS OUT OF 60
100.0% ACCURACY
COMPLETION: 100.0%

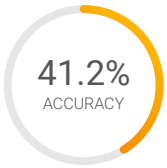
Break XOR encryption using a bruteforce attack with a known crib

Enumeration & Exploitation Module

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

357 TH PLACE OUT OF 8573
NATIONAL RANK

225 POINTS OUT OF 365
PERFORMANCE SCORE



96th National Percentile

Average: 111.7 Points

Average: 67.9%

Average: 41.6%

Not Affine (Easy)

75 POINTS OUT OF 75

75.0% ACCURACY

COMPLETION: 100.0%

Perform code analysis on C source code to reverse a series of bitwise operations

CrackMe (Medium)

25 POINTS OUT OF 90

20.0% ACCURACY

COMPLETION: 50.0%

Perform static analysis on a binary program and extract an image encoded within the binary

Hardware Discovery (Hard)

75 POINTS OUT OF 100

23.1% ACCURACY

COMPLETION: 75.0%

Follow a hardware schematic to interpret raw signal data that is encoded using pulse width modulation

Escalate (Hard)

50 POINTS OUT OF 100

100.0% ACCURACY

COMPLETION: 60.0%

Identify and exploit a vulnerability in a compiled C binary to read data from unclosed file descriptors

Forensics Module

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

647 TH PLACE OUT OF 8573
NATIONAL RANK

220 POINTS OUT OF 305
PERFORMANCE SCORE

83.3% ACCURACY
Average: 58.4%

71.4% COMPLETION
Average: 48.4%

93rd National Percentile
Average: 144.7 Points

Overused (Easy)

70 POINTS OUT OF 105 | **66.7%** ACCURACY | COMPLETION: **66.7%**

Use Binwalk or other file carving tools to analyze and extract embedded files

Oops (Medium)

100 POINTS OUT OF 100 | **100.0%** ACCURACY | COMPLETION: **100.0%**

Utilize forensics tools to perform file recovery on a deleted image

Absence (Hard)

50 POINTS OUT OF 100 | **100.0%** ACCURACY | COMPLETION: **50.0%**

Recover a corrupted G-code file by correcting errors and fixing gaps within the file

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.

971 ST PLACE OUT OF 8573
NATIONAL RANK

245 POINTS OUT OF 300
PERFORMANCE SCORE

50.0% ACCURACY
Average: 56.8%

88.2% COMPLETION
Average: 59.9%

89th National Percentile
Average: 164.5 Points

Ancient History (Easy)

85 POINTS OUT OF 100 | **54.5%** ACCURACY | COMPLETION: **85.7%**

Analyze HTTP access logs to calculate statistics and identify trends in web traffic

Leaked (Medium)

100 POINTS OUT OF 100 | **100.0%** ACCURACY | COMPLETION: **100.0%**

Analyze a SQL backup log file and calculate statistics on user data

Logins (Hard)

60 POINTS OUT OF 100 | **28.6%** ACCURACY | COMPLETION: **80.0%**

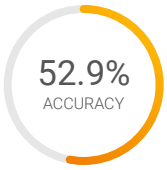
Parse a binary log and perform anomaly detection to identify a compromised user based on GeoIP data

Network Traffic Analysis Module

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

1233 RD PLACE OUT OF 8573
NATIONAL RANK

170 POINTS OUT OF 300
PERFORMANCE SCORE



86th National Percentile

Average: 124.6 Points

Average: 66.3%

Average: 56.9%

Lost in Resolution (Easy)

70 POINTS OUT OF 100

36.4% ACCURACY

COMPLETION: 66.7%

Analyze a packet capture with DNS traffic to identify DNS queries and responses

Wifi (Medium)

100 POINTS OUT OF 100

83.3% ACCURACY

COMPLETION: 100.0%

Analyze a packet capture of WiFi network traffic and crack the password to the WiFi network

Exfil (Hard)

0 POINTS OUT OF 100

0.0% ACCURACY

COMPLETION: 0.0%

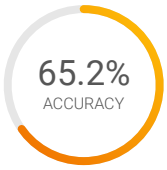
Analyze a packet capture to identify and extract exfiltrated data that was encoded within x.509 certificate SAN fields

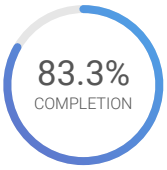
Open Source Intelligence Module

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

1087 TH PLACE OUT OF 8573
NATIONAL RANK

240 POINTS OUT OF 310
PERFORMANCE SCORE





88th National Percentile

Average: 196.4 Points

Average: 70.9%

Average: 66.8%

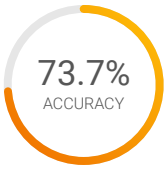
Rules of Conduct (Easy) Introductory challenge on acceptable conduct during NCL	100 POINTS OUT OF 100	100.0% ACCURACY	COMPLETION: 100.0%
Honor (Easy) Analyze an image to obtain data from metadata and file properties	30 POINTS OUT OF 30	75.0% ACCURACY	COMPLETION: 100.0%
Controversial Challenge (Medium) Perform a reverse image search to discover open-source information about a subject	30 POINTS OUT OF 30	100.0% ACCURACY	COMPLETION: 100.0%
Nostalgia (Hard) Utilize open source tools to analyze and geolocate a photo	50 POINTS OUT OF 50	100.0% ACCURACY	COMPLETION: 100.0%
Meow Meow Meow (Hard) Extract an image from an EML file and then perform a reverse image search to discover information about a target	0 POINTS OUT OF 50	0.0% ACCURACY	COMPLETION: 0.0%
GitHub in Action (Hard) Investigate public GitHub repositories to trace connections between user actions and their social media accounts	30 POINTS OUT OF 50	50.0% ACCURACY	COMPLETION: 66.7%

Password Cracking Module

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

1289 TH PLACE OUT OF 8573
NATIONAL RANK

250 POINTS OUT OF 335
PERFORMANCE SCORE



85th National Percentile

Average: 165.3 Points

Average: 86.9%

Average: 50.0%

Hash me outside! (Easy)

50 POINTS OUT OF 50

100.0% ACCURACY

COMPLETION: 100.0%

Generate password hashes using MD5, SHA1, and SHA256

We Will Rockyou (Easy)

50 POINTS OUT OF 50

75.0% ACCURACY

COMPLETION: 100.0%

Crack MD5 password hashes for password found in the RockYou breach

Oph the Grid (Medium)

50 POINTS OUT OF 50

60.0% ACCURACY

COMPLETION: 100.0%

Crack Windows NTLM password hashes using rainbow tables

Totally Safe PDF (Medium)

50 POINTS OUT OF 50

100.0% ACCURACY

COMPLETION: 100.0%

Crack the insecure password on a protected PDF file

put 0n th3 ma5k (Medium)

50 POINTS OUT OF 50

60.0% ACCURACY

COMPLETION: 100.0%

Build a wordlist or pattern rule to crack password hashes of a known pattern

Dice (Hard)

0 POINTS OUT OF 85

0.0% ACCURACY

COMPLETION: 0.0%

Build a custom wordlist to crack passwords by augmenting permutation rules using known password complexity requirements

Scanning & Reconnaissance Module

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

657 TH PLACE OUT OF 8573
NATIONAL RANK

220 POINTS OUT OF 300
PERFORMANCE SCORE

92.9% ACCURACY

76.5% COMPLETION

93rd National Percentile

Average: 171.8 Points

Average: 72.8%

Average: 54.2%

Portscan (Easy)

100 POINTS OUT OF 100

100.0% ACCURACY

COMPLETION: 100.0%

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

Dig (Medium)

100 POINTS OUT OF 100

100.0% ACCURACY

COMPLETION: 100.0%

Utilize DNS services to gain information about an organization's Intranet resources

School Directory (Hard)

20 POINTS OUT OF 100

66.7% ACCURACY

COMPLETION: 33.3%

Conduct reconnaissance on an LDAP server

Web Application Exploitation Module

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

484 TH PLACE OUT OF 8573
NATIONAL RANK

210 POINTS OUT OF 300
PERFORMANCE SCORE

42.9% ACCURACY

66.7% COMPLETION

95th National Percentile

Average: 123.1 Points

Average: 61.9%

Average: 39.4%

Liber8Dogs (Easy)

100 POINTS OUT OF 100

50.0% ACCURACY

COMPLETION: 100.0%

Find and exploit a path traversal vulnerability in a web application

Liber8tion_Login (Medium)

100 POINTS OUT OF 100

75.0% ACCURACY

COMPLETION: 100.0%

Manipulate headers to exploit improper authorization checks in middleware found in CVE-2025-29927

dogstagram (Hard)

10 POINTS OUT OF 100

16.7% ACCURACY

COMPLETION: 25.0%

Bypass data sanitization on a login form and exploit a server side request forgery vulnerability