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CYBER SKYLINE

The National Cyber League
A Community Where Cybersecurity Is a Passion

Veronica Elze

NCL Spring 2025 Individual Game Scouting Report

Dear Veronica Elze,

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/6Y155GYHXR6L

CompTIA. Based on the performance detailed in this NCL Scouting Report, you have earned **14 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

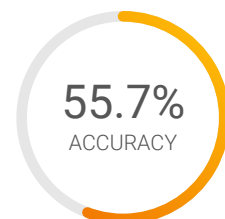
YOUR TOP CATEGORIES

NATIONAL RANK
402ND PLACE
OUT OF 8573
PERCENTILE
96TH

**WEB APPLICATION
EXPLOITATION**
98TH PERCENTILE

**ENUMERATION &
EXPLOITATION**
96TH PERCENTILE

FORENSICS
94TH PERCENTILE



Average: 66.8%

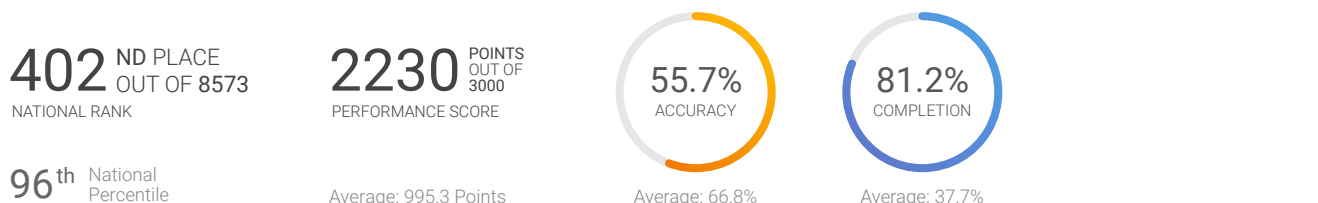
cyberskyline.com/report/6Y155GYHXR6L

Learn more at nationalcyberleague.org



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.



Cryptography

220 POINTS
OUT OF 385

60.9%
ACCURACY

COMPLETION: **73.7%**

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

Enumeration & Exploitation

225 POINTS
OUT OF 365

51.9%
ACCURACY

COMPLETION: **73.7%**

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

Forensics

245 POINTS
OUT OF 305

33.3%
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

260 POINTS
OUT OF 300

53.3%
ACCURACY

COMPLETION: **94.1%**

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

180 POINTS
OUT OF 300

58.8%
ACCURACY

COMPLETION: **83.3%**

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

Open Source Intelligence

240 POINTS
OUT OF 310

44.1%
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

280 POINTS
OUT OF 300

72.7%
ACCURACY

COMPLETION: **94.1%**

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

Web Application Exploitation

230 POINTS
OUT OF 300

53.8%
ACCURACY

COMPLETION: **77.8%**

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

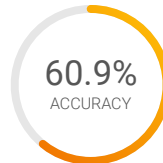
Identify techniques used to encrypt or obfuscate messages and leverage tools to extract the plaintext.

809 TH PLACE
OUT OF 8573
NATIONAL RANK

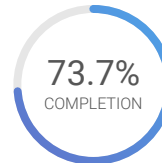
220 POINTS
OUT OF 385
PERFORMANCE SCORE

91 st National
Percentile

Average: 143.1 Points



Average: 65.0%



Average: 44.2%

The Bases (Easy)

45 POINTS
OUT OF 45

60.0%
ACCURACY

COMPLETION: **100.0%**

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

Super Shifty (Easy)

55 POINTS
OUT OF 55

75.0%
ACCURACY

COMPLETION: **100.0%**

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

Pizza Time (Easy)

20 POINTS
OUT OF 50

50.0%
ACCURACY

COMPLETION: **50.0%**

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

Signed (Medium)

45 POINTS
OUT OF 60

37.5%
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)

0 POINTS
OUT OF 60

0.0%
ACCURACY

COMPLETION: **0.0%**

Break XOR encryption using a bruteforce attack with a known crib



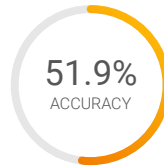


Enumeration & Exploitation Module

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

346 ^{TH PLACE}
OUT OF 8573
NATIONAL RANK

225 ^{POINTS}
OUT OF 365
PERFORMANCE SCORE



Average: 67.9%



Average: 41.6%

96th National
Percentile

Average: 111.7 Points

Not Affine (Easy)

75 ^{POINTS}
OUT OF 75

100.0%
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

66.7%
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

20.0%
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

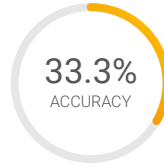
Utilize the proper tools and techniques to analyze, process, recover, and/or investigate digital evidence in a computer-related incident.

568 TH PLACE
OUT OF 8573
NATIONAL RANK

245 POINTS
OUT OF 305
PERFORMANCE SCORE

94th National
Percentile

Average: 144.7 Points



Average: 58.4%



Average: 48.4%

Overused (Easy)

70 POINTS
OUT OF 105

28.6%
ACCURACY

COMPLETION: **66.7%**

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

Oops (Medium)

75 POINTS
OUT OF 100

33.3%
ACCURACY

COMPLETION: **50.0%**

Utilize forensics tools to perform file recovery on a deleted image

Absence (Hard)

100 POINTS
OUT OF 100

40.0%
ACCURACY

COMPLETION: **100.0%**

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

Log Analysis Module

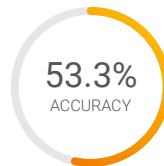
Utilize the proper tools and techniques to establish a baseline for normal operation and identify malicious activities using log files from various services.

756 TH PLACE
OUT OF 8573
NATIONAL RANK

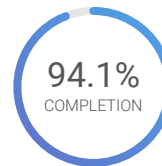
260 POINTS
OUT OF 300
PERFORMANCE SCORE

92nd National
Percentile

Average: 164.5 Points



Average: 56.8%



Average: 59.9%

Ancient History (Easy)

100 POINTS
OUT OF 100

63.6%
ACCURACY

COMPLETION: **100.0%**

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

Leaked (Medium)

100 POINTS
OUT OF 100

55.6%
ACCURACY

COMPLETION: **100.0%**

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

Logins (Hard)

60 POINTS
OUT OF 100

40.0%
ACCURACY

COMPLETION: **80.0%**

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



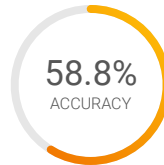


Network Traffic Analysis Module

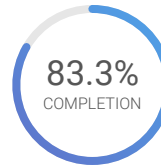
Identify malicious and benign network traffic to demonstrate an understanding of potential security breaches.

1110 ^{TH PLACE}
OUT OF 8573
NATIONAL RANK

180 ^{POINTS}
OUT OF 300
PERFORMANCE SCORE



Average: 66.3%



Average: 56.9%

88th National
Percentile

Average: 124.6 Points

Lost in Resolution (Easy)

80 ^{POINTS}
OUT OF 100

62.5%
ACCURACY

COMPLETION: **83.3%**

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

Wifi (Medium)

100 ^{POINTS}
OUT OF 100

55.6%
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

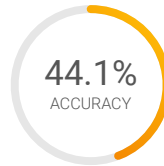
Utilize publicly available information such as search engines, public repositories, social media, and more to gain in-depth knowledge on a topic or target.

1164 ^{TH PLACE}
OUT OF 8573
NATIONAL RANK

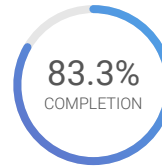
240 ^{POINTS}
OUT OF 310
PERFORMANCE SCORE

87th National
Percentile

Average: 196.4 Points



Average: 70.9%



Average: 66.8%

Rules of Conduct (Easy)

100 ^{POINTS}
OUT OF 100

100.0%
ACCURACY

COMPLETION: **100.0%**

Introductory challenge on acceptable conduct during NCL

Honor (Easy)

30 ^{POINTS}
OUT OF 30

100.0%
ACCURACY

COMPLETION: **100.0%**

Analyze an image to obtain data from metadata and file properties

Controversial Challenge (Medium)

30 ^{POINTS}
OUT OF 30

50.0%
ACCURACY

COMPLETION: **100.0%**

Perform a reverse image search to discover open-source information about a subject

Nostalgia (Hard)

50 ^{POINTS}
OUT OF 50

75.0%
ACCURACY

COMPLETION: **100.0%**

Utilize open source tools to analyze and geolocate a photo

Meow Meow Meow (Hard)

0 ^{POINTS}
OUT OF 50

0.0%
ACCURACY

COMPLETION: **0.0%**

Extract an image from an EML file and then perform a reverse image search to discover information about a target

GitHub in Action (Hard)

30 ^{POINTS}
OUT OF 50

22.2%
ACCURACY

COMPLETION: **66.7%**

Investigate public GitHub repositories to trace connections between user actions and their social media accounts



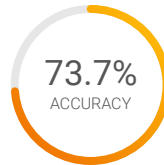


Password Cracking Module

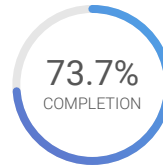
Identify types of password hashes and apply various techniques to efficiently determine plaintext passwords.

1274 TH PLACE
OUT OF 8573
NATIONAL RANK

250 POINTS
OUT OF 335
PERFORMANCE SCORE



Average: 86.9%



Average: 50.0%

86th National
Percentile

Average: 165.3 Points

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

100.0%
ACCURACY

COMPLETION: **100.0%**

Crack MD5 password hashes for password found in the RockYou breach

Oph the Grid (Medium)

50 POINTS
OUT OF 50

42.9%
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 On th3 ma5k (Medium)

50 POINTS
OUT OF 50

75.0%
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



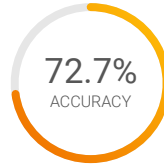


Scanning & Reconnaissance Module

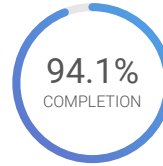
Identify and use the proper tools to gain intelligence about a target including its services and potential vulnerabilities.

577TH PLACE
OUT OF 8573
NATIONAL RANK

280 POINTS
OUT OF 300
PERFORMANCE SCORE



Average: 72.8%



Average: 54.2%

94th National
Percentile

Average: 171.8 Points

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)

80 POINTS
OUT OF 100

45.5%
ACCURACY

COMPLETION: **83.3%**

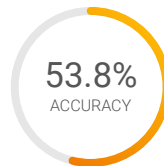
Conduct reconnaissance on an LDAP server

Web Application Exploitation Module

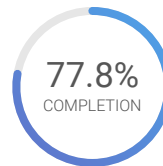
Identify actionable exploits and vulnerabilities and use them to bypass the security measures in online services.

225TH PLACE
OUT OF 8573
NATIONAL RANK

230 POINTS
OUT OF 300
PERFORMANCE SCORE



Average: 61.9%



Average: 39.4%

98th National
Percentile

Average: 123.1 Points

Liber8Dogs (Easy)

100 POINTS
OUT OF 100

100.0%
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)

30 POINTS
OUT OF 100

28.6%
ACCURACY

COMPLETION: **50.0%**

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

