

## NCL Spring 2025 Individual Game Scouting Report

Dear Cody Kyser,

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/1UP6AB2QK9E0



Based on the performance detailed in this NCL Scouting Report, you have earned 17 hours of CompTIA. 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



#### NATIONAL CYBER LEAGUE SCORE CARD

NCL SPRING 2025 INDIVIDUAL GAME

**NATIONAL RANK** 143RD PLACE **OUT OF 8573 PERCENTILE 99**TH

YOUR TOP CATEGORIES PASSWORD CRACKING

**NETWORK TRAFFIC 100TH PERCENTILE 100TH PERCENTILE** 

99TH PERCENTILE



Average: 66.8%

cyberskyline.com/report ID: 1UP6AB2QK9E0



## 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.

3 RD PLACE OUT OF 8573

NATIONAL RANK





99<sup>th</sup> National

Average: 995.3 Points

Average: 66.8%

Average: 37.7%

Cryptography	265 POINTS OUT OF 385	64.0% ACCURACY	COMPLETION:	84.2%
Identify techniques used to encrypt or obfuscate mess extract the plaintext.	ages and leverage tools to	7.000.0.0		
Enumeration & Exploitation	205 POINTS OUT OF 365	59.1% ACCURACY	COMPLETION:	68.4%
Identify actionable exploits and vulnerabilities and use security measures in code and compiled binaries.	them to bypass the			
Forensics	305 POINTS OUT OF 305	36.8% ACCURACY	COMPLETION:	100.0%
Utilize the proper tools and techniques to analyze, procinvestigate digital evidence in a computer-related incident		7.000.0.0		
Log Analysis	260 POINTS OUT OF 300	50.0% ACCURACY	COMPLETION:	94.1%
Utilize the proper tools and techniques to establish a batter operation and identify malicious activities using log file				
Network Traffic Analysis	300 POINTS OUT OF 300	80.0% ACCURACY	COMPLETION:	100.0%
Identify malicious and benign network traffic to demon potential security breaches.	strate an understanding of	7.000.0.0		
Open Source Intelligence	265 POINTS OUT OF 310	64.0% ACCURACY	COMPLETION:	88.9%
Utilize publicly available information such as search en social media, and more to gain in-depth knowledge on		7.000.0.0		
Password Cracking	295 POINTS OUT OF 335	89.5% ACCURACY	COMPLETION:	89.5%
Identify types of password hashes and apply various to determine plaintext passwords.	echniques to efficiently	7.000.0.0		
Scanning & Reconnaissance	280 POINTS OUT OF 300	94.1% ACCURACY	COMPLETION:	94.1%
Identify and use the proper tools to gain intelligence ab services and potential vulnerabilities.	out a target including its			
Web Application Exploitation	260 POINTS OUT OF 300	80.0% ACCURACY	COMPLETION:	88.9%

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



1 | Learn more at nationalcyberleague.org | Verify this report at cyberskyline.com/report/1UP6AB2QK9E0

Identify actionable exploits and vulnerabilities and use them to bypass the

security measures in online services.



# Cryptography Module

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

508 TH PLACE OUT OF 8573 NATIONAL RANK

PERFORMANCE SCORE

64.0% ACCURACY



95<sup>th</sup> National Percentile

Average: 143.1 Points

Average: 65.0%

Average: 44.2%

The Bases (Easy)	45 POINTS OUT OF	60.0%	COMPLETION:	100.0%	
Analyze and obtain the plaintext from messages encode bases	d with common number	7.00010101			
Super Shifty (Easy)	55 POINTS OUT OF	75.0% ACCURACY	COMPLETION:	100.0%	
Analyze and obtain the plaintext for a message encrypte	d with a shift cipher	7,00010701			
Pizza Time (Easy)	50 POINTS OUT OF	50.0% ACCURACY	COMPLETION:	100.0%	
Analyze and obtain the plaintext for a message encrypte cipher	d with the rail fence	7,00010101			
Signed (Medium)	60 POINTS OUT OF	80.0% ACCURACY	COMPLETION:	100.0%	
Identify tampered files by verifying PGP signatures		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Altered Clouds (Medium)	55 POINTS OUT OF	100.0%	COMPLETION:	100.0%	
Verify the integrity of files by computing HMAC values		7,00010701			
Zugzwang (Medium)	O POINTS OUT OF	0.0% ACCURACY	COMPLETION:	0.0%	
Decode a hidden file by implementing a decoder for a custom encoding scheme					
Kracken (Hard)	POINTS OUT OF 60	0.0% ACCURACY	COMPLETION:	0.0%	
Break XOR encryption using a bruteforce attack with a kr	nown crib				



## **Enumeration & Exploitation Module**

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

3 RD PLACE OUT OF 8573





96<sup>th</sup> National Percentile

Average: 111.7 Points

Average: 67.9%

Average: 41.6%

Not Affine (Easy)	75 POINTS OUT OF	75.0%	COMPLETION:	100.0%		
Perform code analysis on C source code to reverse a s	eries of bitwise operations					
CrackMe (Medium)	25 POINTS OUT OF	100.0% 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	30.0% ACCURACY	COMPLETION:	75.0%		
Follow a hardware schematic to interpret raw signal data that is encoded using pulse width modulation						
Escalate (Hard)	30 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	40.0%		

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.

5 TH PLACE OUT OF 8573

36.8% ACCURACY



98<sup>th</sup> National

Average: 144.7 Points

Average: 58.4%

Average: 48.4%

Overused (Easy)	105 POINTS OUT OF 105	50.0% ACCURACY	COMPLETION:	100.0%	
Use Binwalk or other file carving tools to analyze and	extract embedded files				
Oops (Medium)	100 POINTS OUT OF 100	33.3% ACCURACY	COMPLETION:	100.0%	
Utilize forensics tools to perform file recovery on a deleted image					
Absence (Hard)	100 POINTS OUT OF	28.6% 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.

NATIONAL RANK

50.0% ACCURACY



91 st National

Average: 164.5 Points

Average: 56.8%

100 POINTS OUT OF Analyze HTTP access logs to calculate statistics and identify trends in web traffic

63.6% ACCURACY COMPLETION: 100.0%

Leaked (Medium)

Ancient History (Easy)

62.5%

COMPLETION: 100.0%

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

Logins (Hard)

30.8%

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.

84 TH PLACE OUT OF 8573 NATIONAL RANK 300 POINTS OUT OF 300 PERFORMANCE SCORE

80.0% ACCURACY



100<sup>th</sup> National Percentile

Average: 124.6 Points

Average: 66.3%

Average: 56.9%

Lost in Resolution (Easy)	100 POINTS OUT OF 100	75.0% accuracy	COMPLETION:	100.0%
Analyze a packet capture with DNS traffic to identify D	NS queries and responses			
Wifi (Medium)	100 POINTS OUT OF	83.3% ACCURACY	COMPLETION:	100.0%
Analyze a packet capture of WiFi network traffic and c WiFi network	crack the password to the			
Exfil (Hard)	100 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	100.0%

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.

320 TH PLACE OUT OF 8573

265 POINTS OUT OF 310





97<sup>th</sup> 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 NC	L	AGGONAGT				
Honor (Easy)	30 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	100.0%		
Analyze an image to obtain data from metadata and file p	properties					
Controversial Challenge (Medium	) 30 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	100.0%		
Perform a reverse image search to discover open-source information about a subject						
Nostalgia (Hard)	50 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	100.0%		
Utilize open source tools to analyze and geolocate a photo						
Meow Meow (Hard)	25 POINTS OUT OF	11.1% ACCURACY	COMPLETION:	50.0%		
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	66.7% 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.

54 TH PLACE OUT OF 8573 NATIONAL RANK 295 POINTS OUT OF 335 PERFORMANCE SCORE

89.5% ACCURACY 89.5% COMPLETION

100<sup>th</sup> National Percentile

Average: 165.3 Points

Average: 86.9%

Average: 50.0%

Hash me outside! (Easy)	50 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	100.0%		
Generate password hashes using MD5, SHA1, and SHA	256	7.000.0.0				
We Will Rockyou (Easy)	50 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	100.0%		
Crack MD5 password hashes for password found in the	e RockYou breach					
Oph the Grid (Medium)	50 POINTS OUT OF	60.0% ACCURACY	COMPLETION:	100.0%		
Crack Windows NTLM password hashes using rainbow tables						
Totally Safe PDF (Medium)	50 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	100.0%		
Crack the insecure password on a protected PDF file						
put 0n th3 ma5k (Medium)	50 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	100.0%		
Build a wordlist or pattern rule to crack password hashes of a known pattern						
Dice (Hard)	45 POINTS OUT OF 85	100.0% ACCURACY	COMPLETION:	60.0%		

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.

**TH** PLACE **OUT OF 8573** NATIONAL RANK





95<sup>th</sup> National

Average: 171.8 Points

Average: 72.8%

Average: 54.2%

COMPLETION: 100.0% Portscan (Easy) 100.0% Perform a port scan and identify services running on a remote host Dig (Medium) COMPLETION: 100.0% 100.0% ACCURACY Utilize DNS services to gain information about an organization's Intranet COMPLETION: 83.3% School Directory (Hard) 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.

6 TH PLACE OUT OF 8573 NATIONAL RANK



88.9%

99th National

Average: 123.1 Points

Average: 61.9%

Average: 39.4%

100.0% COMPLETION: Liber8Dogs (Easy) 100.0% Find and exploit a path traversal vulnerability in a web application COMPLETION: 100.0% Liber8tion\_Login (Medium) 60.0% Manipulate headers to exploit improper authorization checks in middleware found in CVE-2025-29927

dogstagram (Hard)

60 POINTS OUT OF

100.0% **ACCURACY** 

COMPLETION: 75.0%

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