

## NCL Spring 2025 Team Game Scouting Report

Dear Cody Kyser (Team "BinReapers"),

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/4J84RA814ULH

Congratulations for your participation in the NCL Spring 2025 Team 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 TEAM GAME

NATIONAL RANK
25<sup>TH</sup> PLACE
OUT OF 4779
PERCENTILE
100<sup>TH</sup>

NETWORK TRAFFIC ANALYSIS 100TH PERCENTILE

YOUR TOP CATEGORIES

SCANNING &
RECONNAISSANCE
100TH PERCENTILE

INTELLIGENCE

100TH PERCENTILE



Average: 55.4%

cyberskyline.com/report ID: 4J84RA814ULH



# NCL Spring 2025 Team Game

The NCL Team Game is designed for student players nationwide to compete in realtime in the categories listed below. The Team Game promotes camaraderie and evaluates the collective technical cybersecurity skills of the team members.

25 TH PLACE OUT OF 4779 2770 POINT OUT OF SCORE





100<sup>th</sup> National Percentile

Average: 989.7 Points

Average: 55.4%

Average: 42.7%

Cryptography	325 POINTS OUT OF 325	73.9% ACCURACY	COMPLETION:	100.0%
Identify techniques used to encrypt or obfuscate message extract the plaintext.	ges and leverage tools to	AGGIVIE!		
Enumeration & Exploitation	260 POINTS OUT OF 380	87.5% ACCURACY	COMPLETION:	87.5%
Identify actionable exploits and vulnerabilities and use th security measures in code and compiled binaries.	em to bypass the	ACCONACT		
Forensics	300 POINTS OUT OF 300	71.4%	COMPLETION:	100.0%
Utilize the proper tools and techniques to analyze, proces investigate digital evidence in a computer-related inciden		AGGIVIE!		
Log Analysis	315 POINTS OUT OF 315	73.7% ACCURACY	COMPLETION:	100.0%
Utilize the proper tools and techniques to establish a bas operation and identify malicious activities using log files		ACCONACT		
Network Traffic Analysis	300 POINTS OUT OF 300	100.0% ACCURACY	COMPLETION:	100.0%
Identify malicious and benign network traffic to demonst potential security breaches.	rate an understanding of	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Open Source Intelligence	350 POINTS OUT OF 350	87.1% ACCURACY	COMPLETION:	100.0%
Utilize publicly available information such as search engi social media, and more to gain in-depth knowledge on a		ACCONACT		
Password Cracking	320 POINTS OUT OF 320	94.4% ACCURACY	COMPLETION:	100.0%
Identify types of password hashes and apply various techniques the determine plaintext passwords.	nniques to efficiently	ACCONACT		
Scanning & Reconnaissance	300 POINTS OUT OF 300	100.0% ACCURACY	COMPLETION:	100.0%
Identify and use the proper tools to gain intelligence about services and potential vulnerabilities.		AUGUNAU I		
Web Application Exploitation	200 POINTS OUT OF	100.0% ACCURACY	COMPLETION:	55.6%

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



### The National Cyber League A Community Where Cybersecurity Is a Passion

### Cryptography Module

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

23 RD PLACE OUT OF 4779

PERFORMANCE SCORE

73.9% ACCURACY

100.0% COMPLETION Average: 46.0% TOP NICE WORKROLES

Security Control Assessor Secure Software Assessor **Exploitation Analyst** Cyber Operator Security Architect

NATIONAL RANK

100<sup>th</sup> National Percentile

Average: 110.6 Points

Average: 58.9%

100.0%

ACCURACY

100.0%

100.0%

COMPLETION: 100.0% COMPLETION: 100.0% COMPLETION:

So Basic (Easy)

Decode the plaintext of messages encoded with common number bases

For Fun (Easy)

Decrypt messages that are encrypted using different shift ciphers

Crypto Therapy (Medium)

Exploit a poor implementation of RSA to decrypt sensitive data

Skip To My Lou (Medium)

100.0% ACCURACY

Decrypt a message that was encrypted using the Skipjack cipher

Infinite Cosmic Power (Hard)

53.8%

100.0% COMPLETION: 100.0% COMPLETION: 100.0%

Perform a differential power attack on a power trace to obtain an AES encryption



### **Enumeration & Exploitation Module**

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

**TH** PLACE OUT OF 4779 NATIONAL RANK

ERFORMANCE SCORE

87.5%

Average: 57.3%

87.5% COMPLETION Average: 50.1%

TOP NICE WORKROLES

Cyber Operator Target Developer **Exploitation Analyst** Software Developer Systems Security Analyst

99th National

Average: 132.2 Points

Ransomed (Easy)

Percentile

100.0% **ACCURACY** 

COMPLETION:

100.0%

Analyze source code to bypass an XOR-based authentication mechanism

Crawling (Medium)

80.0% **ACCURACY**  COMPLETION: 100.0%

Perform a privilege escalation attack by coercing a binary with elevated permissions into running untrusted software

ExploitExhibit (Hard)

100.0% ACCURACY

COMPLETION: 50.0%

Exploit a C++ program by undermining the heap memory or leaking vtable pointers

### 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 4779 NATIONAL RANK

PERFORMANCE SCORE

71.4% ACCURACY

Average: 56.8%

100.0% COMPLETION

TOP NICE WORKROLES

Cyber Defense Forensics Analyst Cyber Crime Investigator Cyber Defense Incident Responder

Cyber Defense Analyst

Average: 48.1%

99th National

Origin Story (Easy)

Average: 136.7 Points

100 POINTS OUT OF

100.0%

COMPLETION: 100.0%

Investigate a Git repository to find leaked secrets

Ransom Residue (Medium)

55.6%

COMPLETION: 100.0%

Perform a forensic investigation of a computer that was compromised by ransomware by analyzing a disk image file

Archive (Hard)

100.0% ACCURACY

COMPLETION: 100.0%

Automate the extraction of files by matching file signatures in a raw byte stream





### 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.

43 RD PLACE OUT OF 4779

315 POINTS OUT OF 315 PERFORMANCE SCORE

73.7% ACCURACY 100.0% COMPLETION Average: 53.9%

#### TOP NICE WORKROLES

Cyber Defense Analyst Systems Security Analyst All-Source Analyst Cyber Defense Forensics Analyst Data Analyst

NATIONAL RANK

100<sup>th</sup> National

Average: 161.6 Points

Average: 52.2%

What Remains (Easy)

 $100_{\tiny{\begin{array}{c} \text{OUT OF} \\ 100 \end{array}}}^{\tiny{\begin{array}{c} \text{POINTS} \\ 100 \end{array}}}$ 

100.0% ACCURACY

COMPLETION:

100.0%

Analyze event logs from a Windows 7 workstation that was compromised by FternalBlue

Compromising (Medium)

100 POINTS OUT OF 100

54.5% ACCURACY COMPLETION: 100.0%

Analyze a NetFlow log to identify compromised devices and malicious behavior

Coords (Hard)

115 POINTS OUT OF 115

100.0% ACCURACY

COMPLETION: 100.0%

Parse a custom binary file format and perform geospatial analysis of drone flight naths

### Network Traffic Analysis Module

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

1 ST PLACE OUT OF 4779 NATIONAL RANK 300 POINTS OUT OF 300 PERFORMANCE SCORE

100.0% ACCURACY 100.0% COMPLETION

Average: 65.1%

TOP NICE WORKROLES

Cyber Defense Analyst All-Source Analyst Cyber Defense Incident Responder Target Network Analyst Cyber Operator

100<sup>th</sup> National Percentile

Average: 147.2 Points

Average: 60.6%

HTTP Forever (Easy)

100 POINTS OUT OF

100.0% ACCURACY

COMPLETION: 100.0%

Analyze a packet capture with HTTP traffic to identify web browsing behavior

SQL Storage Secrets (Medium)

 $100^{\frac{\mathsf{POINTS}}{0\mathsf{UT}\mathsf{OF}}}_{100}$ 

100.0% ACCURACY COMPLETION: 100.0%

Analyze PostgreSQL traffic to discover information about a database and the binary content inside it

Ping of Domin8tion (Hard)

100 POINTS

100.0% ACCURACY

COMPLETION: 100.0%

Analyze a packet capture to extract an image that was exfiltrated by encoding data in ICMP packet headers

100.0%



### 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.

O TH PLACE OUT OF 4779

ERFORMANCE SCORE





COMPLETION:

TOP NICE WORKROLES

Systems Security Analyst Target Developer System Administrator Research & Development Specialist Cyber Intel Planner

NATIONAL RANK

100<sup>th</sup> National

Average: 181.0 Points

Introductory challenge on acceptable conduct during NCL

Rules of Conduct (Easy)

Swap (Easy)

Granny (Medium)

Sla.cking (Medium)

Gramma Brasiliensis (Hard)

100.0% Utilize blockchain tools to perform an analysis of cryptocurrency transactions

ACCURACY

100.0% **ACCURACY** 

57.1%

100.0%

83.3% ACCURACY

COMPLETION: 100.0% COMPLETION: 100.0%

COMPLETION: 100.0%

COMPLETION: 100.0%

Conduct an open source investigation on an individual to create a timeline of their actions and cryptocurrency transactions

Use open source tools to find information about the subject of an image

Perform introspection on deep web forums using the Internet Archive

100.0%



### Password Cracking Module

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

72 ND PLACE OUT OF 4779 NATIONAL RANK 320 POINTS OUT OF 320 PERFORMANCE SCORE

94.4% ACCURACY



TOP NICE WORKROLES

Cyber Operator Exploitation Analyst Systems Security Analyst Cyber Defense Incident Responder Cyber Crime Investigator

99<sup>th</sup> National Percentile

Router (Hard)

Average: 151.0 Points

Average: 80.8%

Average: 53.7%

COMPLETION:

COMPLETION: 100.0% Loaded Hash Browns (Easy) 100.0% **ACCURACY** Generate password hashes using MD5, SHA1, and SHA256 COMPLETION: 100.0% You're So Basic (Easy) 45 POINTS OUT OF 75.0% **ACCURACY** Crack MD5 password hashes for commonly used passwords COMPLETION: 100.0% 786b63642e636f6d2f393336 45 POINTS OUT OF 100.0% **ACCURACY** (Medium) Crack Windows NTLM password hashes that may not be found in common rainbow tables COMPLETION: Zip (Medium) 100.0% 100.0% **ACCURACY** Crack the insecure password for a protected zip file COMPLETION: 100.0% Crunch Time (Medium) 100.0% **ACCURACY** Create a custom wordlist to crack passwords based on known password rules

100.0%

ACCURACY

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.

2 ND PLACE OUT OF 4779

PERFORMANCE SCORE

100.0% ACCURACY

Average: 46.8%



#### TOP NICE WORKROLES

Vulnerability Assessment Analyst Target Network Analyst Cyber Operations Planner Target Developer Security Control Assessor

NATIONAL RANK

100<sup>th</sup> National

LuckyCat (Easy)

Average: 106.3 Points

100.0% ACCURACY

COMPLETION:

COMPLETION:

100.0%

Classify malware from benign samples by creating custom Yara rules

Schrödinger's Port (Medium)

100.0% **ACCURACY** 

100.0%

Disable a local firewall and perform a port scan on an internal network

Ephemeral (Hard)

100.0% ACCURACY

COMPLETION:

100.0%

Scan a device and perform a port knocking sequence to access a hidden service

### Web Application Exploitation Module

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

3 RD PLACE OUT OF 4779 NATIONAL RANK

99th National Percentile PERFORMANCE SCORE

100.0% ACCURACY



TOP NICE WORKROLES

Cyber Operator Software Developer **Exploitation Analyst** Systems Security Analyst Database Administrator

Doohickey Divulgence (Easy)

Average: 96.3 Points

Average: 69.9%

100.0% ACCURACY

COMPLETION:

100.0%

Perform analysis on minified source code to decode and extract sensitive information

Pierre's Store (Medium)

100.0% **ACCURACY** 

COMPLETION: 100.0%

Perform a SQL injection attack to leak sensitive information from a web application

Cash Rules Everything Around Me nound Me nound Me

0.0% ACCURACY COMPLETION: 0.0%

