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**CYBER SKYLINE**

The National Cyber League  
A Community Where Cybersecurity Is a Passion

David Buehler

# NCL Fall 2025 Team Game Scouting Report

Dear David Buehler (Team "SANS.edu 829"),

Thank you for participating in the National Cyber League (NCL) Fall 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 Fall 2025 Season had 8,520 students/players and 538 faculty/coaches from more than 490 two- and four-year schools & 200 high schools across all 50 U.S. states registered to play. The Individual Game Capture the Flag (CTF) event took place from October 24 through October 26. The Team Game CTF event took place from November 7 through November 9. 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/DRFEX8D67UE9](https://cyberskyline.com/report/DRFEX8D67UE9)

Congratulations for your participation in the NCL Fall 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

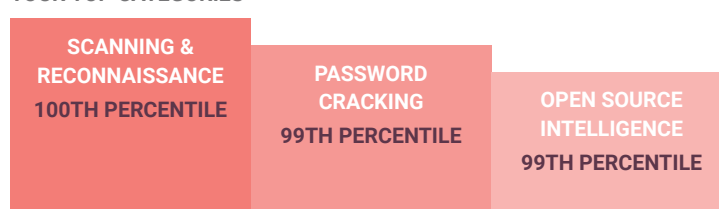


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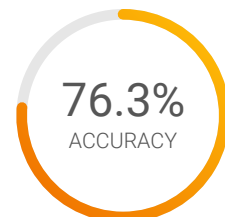
## NATIONAL CYBER LEAGUE SCORE CARD

NCL FALL 2025 TEAM GAME

### YOUR TOP CATEGORIES



**NATIONAL RANK**  
**117<sup>TH</sup> PLACE**  
**OUT OF 4214**  
**PERCENTILE**  
**98<sup>TH</sup>**



Average: 56.1%

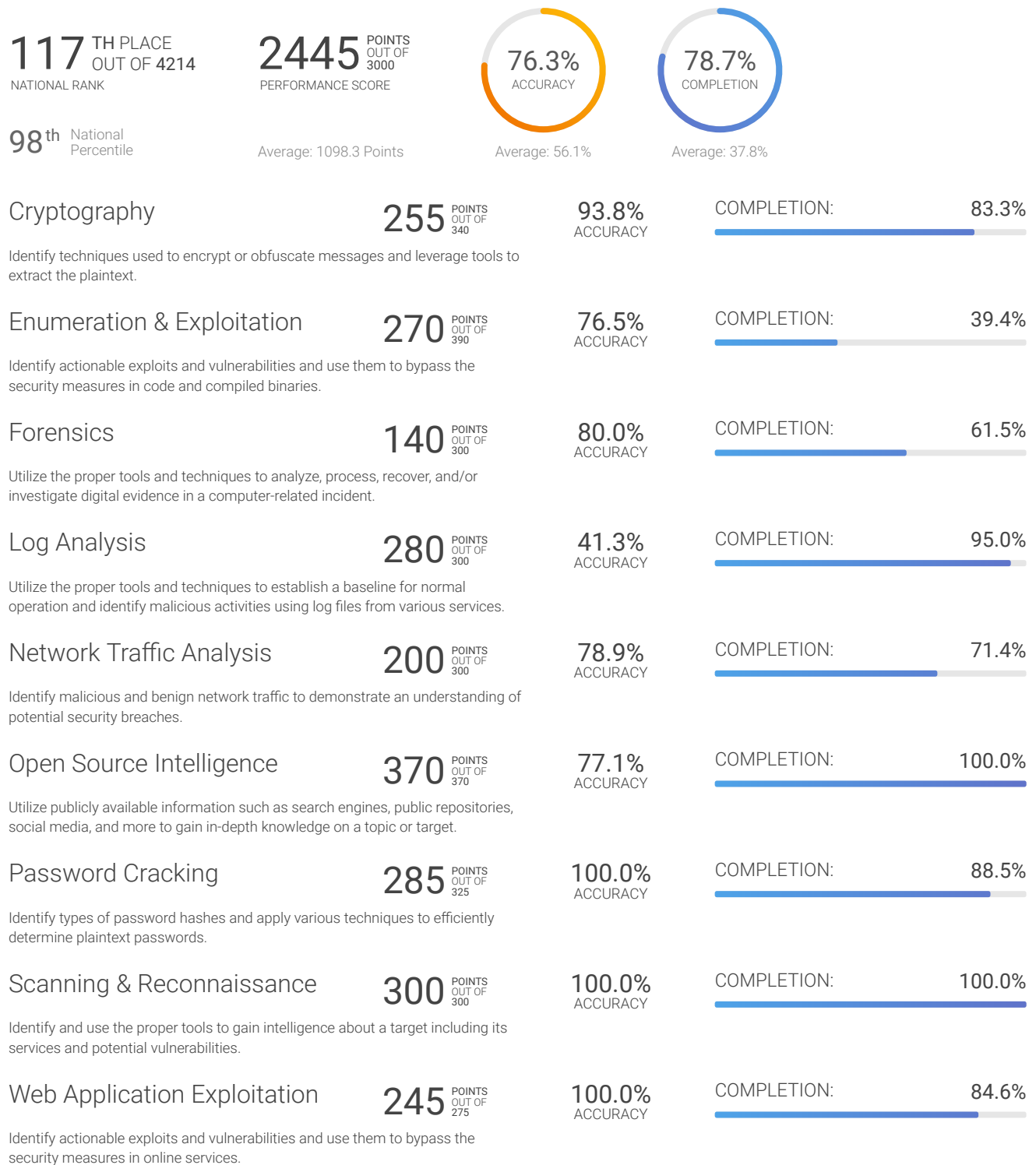
[cyberskyline.com/report/DRFEX8D67UE9](https://cyberskyline.com/report/DRFEX8D67UE9)

Learn more at [nationalcyberleague.org](https://nationalcyberleague.org)



## NCL Fall 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.



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



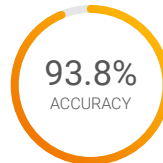


## Cryptography Module

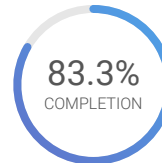
Identify techniques used to encrypt or obfuscate messages and leverage tools to extract the plaintext.

**174** TH PLACE  
OUT OF 4214  
NATIONAL RANK

**255** POINTS  
OUT OF 340  
PERFORMANCE SCORE



Average: 40.9%



Average: 39.5%

**96<sup>th</sup>** National  
Percentile

Average: 119.8 Points

### Steganography (Easy)

**30** POINTS  
OUT OF 30

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Decode Whitespace, Trevanion, and Baconian Ciphers.

### Layer Cake (Easy)

**60** POINTS  
OUT OF 60

**75.0%**  
ACCURACY

COMPLETION: **100.0%**

Decode a plaintext string obfuscated by multiple layers of character encoding.

### Cryptic Cultures (Easy)

**45** POINTS  
OUT OF 45

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Decode ciphers from popular culture.

### Quagmire (Medium)

**60** POINTS  
OUT OF 60

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Reverse engineer the keys of a Quagmire II cipher through a known-plaintext attack.

### Crypto Twister (Medium)

**20** POINTS  
OUT OF 75

**100.0%**  
ACCURACY

COMPLETION: **33.3%**

Exploit Mersenne Twister PRNG on a Rust TCP server.

### Chaos Theory (Hard)

**40** POINTS  
OUT OF 70

**100.0%**  
ACCURACY

COMPLETION: **75.0%**

Use entropy analysis and cryptographic fuzzing to decrypt a binary file.



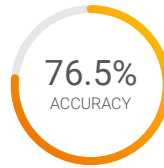


## Enumeration & Exploitation Module

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

**136** <sup>TH PLACE</sup>  
OUT OF 4214  
NATIONAL RANK

**270** <sup>POINTS</sup>  
OUT OF 390  
PERFORMANCE SCORE



Average: 32.1%



Average: 18.7%

**97<sup>th</sup>** National  
Percentile

Average: 100.3 Points

### Cooking Lunch (Easy)

**100** <sup>POINTS</sup>  
OUT OF 100

**75.0%**  
ACCURACY

COMPLETION: 100.0%

Reverse engineer the required input of an obfuscated program.

### Poliwhirl (Medium)

**100** <sup>POINTS</sup>  
OUT OF 100

**80.0%**  
ACCURACY

COMPLETION: 100.0%

Reverse engineer an optimized RISC-V binary.

### Cooking Dinner (Hard)

**50** <sup>POINTS</sup>  
OUT OF 50

**66.7%**  
ACCURACY

COMPLETION: 100.0%

Reverse engineer the functionality of an obfuscated program from the given output.

### MAINFRAME - Access the Mainframe

**20** <sup>POINTS</sup>  
OUT OF 140

**80.0%**  
ACCURACY

COMPLETION: 16.7%

Perform program execution, backdooring, and buffer overflow attacks on z/OS mainframes.



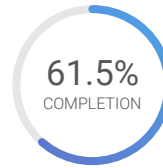
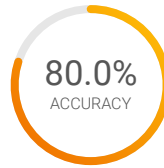


## Forensics Module

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

**361** ST PLACE  
OUT OF 4214  
NATIONAL RANK

**140** POINTS  
OUT OF 300  
PERFORMANCE SCORE



**92<sup>nd</sup>** National  
Percentile

Average: 77.7 Points

Average: 33.6%

Average: 24.8%

### Colorwork (Easy)

**100** POINTS  
OUT OF 100

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Use manual and/or automated tools to find information hidden within an image.

### Technical Difficulties (Medium)

**5** POINTS  
OUT OF 100

**100.0%**  
ACCURACY

COMPLETION: **66.7%**

Manually apply an incremental patch to restore data from a corrupted backup archive.

### Split Keys (Hard)

**10** POINTS  
OUT OF 75

**100.0%**  
ACCURACY

COMPLETION: **20.0%**

Recover artifacts from a process dump and decrypt the hidden message.

### MAINFRAME - Hack the Gibson

**25** POINTS  
OUT OF 25

**66.7%**  
ACCURACY

COMPLETION: **100.0%**

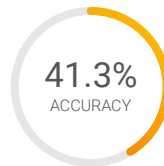
Decode XMI files and crack RACF hashes to get mainframe logins.

## 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.

**217** TH PLACE  
OUT OF 4214  
NATIONAL RANK

**280** POINTS  
OUT OF 300  
PERFORMANCE SCORE



**95<sup>th</sup>** National  
Percentile

Average: 120.8 Points

Average: 40.2%

Average: 43.4%

### LO(L)G (Easy)

**80** POINTS  
OUT OF 100

**29.2%**  
ACCURACY

COMPLETION: **87.5%**

Analyze the attack chain of ClickFix family malware in a Sysmon xml file.

### JSON Query (Medium)

**100** POINTS  
OUT OF 100

**62.5%**  
ACCURACY

COMPLETION: **100.0%**

Parse and analyze Suricata eve.json logs to identify C2 activity.

### Chronicles of XP (Hard)

**100** POINTS  
OUT OF 100

**50.0%**  
ACCURACY

COMPLETION: **100.0%**

Parse a custom binary file based on the provided specs to decode the data.



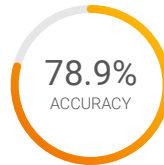


## Network Traffic Analysis Module

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

**416** <sup>TH PLACE</sup>  
OUT OF 4214  
NATIONAL RANK

**200** <sup>POINTS</sup>  
OUT OF 300  
PERFORMANCE SCORE



Average: 36.7%



Average: 36.1%

**91<sup>st</sup>** National  
Percentile

Average: 105.8 Points

### Snakes and Packets (Easy)

**100** <sup>POINTS</sup>  
OUT OF 100

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Analyze a packet capture to detect data exfiltration through SMTP.

### An Offer You Can't Refuse (Medium)

**80** <sup>POINTS</sup>  
OUT OF 100

**70.0%**  
ACCURACY

COMPLETION: **87.5%**

Identify specific characteristics of a rogue DHCP server from a packet capture.

### Patient Zero (Hard)

**20** <sup>POINTS</sup>  
OUT OF 100

**66.7%**  
ACCURACY

COMPLETION: **28.6%**

Examine and parse a custom protocol used to transmit patient information, similar to HL7.



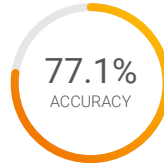


## Open Source Intelligence Module

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

**53** RD PLACE  
OUT OF 4214  
NATIONAL RANK

**370** POINTS  
OUT OF 370  
PERFORMANCE SCORE



Average: 55.2%



Average: 64.9%

**99<sup>th</sup>** National  
Percentile

Average: 197.1 Points

### Rules of Conduct (Easy)

**30** POINTS  
OUT OF 30

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Introductory challenge on acceptable conduct during NCL.

### Cruise Ship (Easy)

**50** POINTS  
OUT OF 50

**33.3%**  
ACCURACY

COMPLETION: **100.0%**

Identify and locate a cruise ship by cross-referencing its itinerary with an EXIF timestamp.

### Finding Room 47 (Easy)

**50** POINTS  
OUT OF 50

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Use OSINT to research clues from an old puzzle book.

### Tooling (Medium)

**60** POINTS  
OUT OF 60

**85.7%**  
ACCURACY

COMPLETION: **100.0%**

Perform OSINT on an image using EXIF data and online research to find key information.

### Still Controversial? (Medium)

**80** POINTS  
OUT OF 80

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Investigate publicly available information on a company's data breach.

### Guiding Light (Hard)

**100** POINTS  
OUT OF 100

**66.7%**  
ACCURACY

COMPLETION: **100.0%**

Triangulate a location using EXIF timestamp data and shadow lengths.



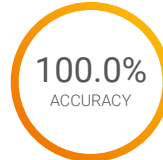


## Password Cracking Module

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

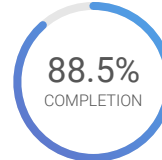
**44** TH PLACE  
OUT OF 4214  
NATIONAL RANK

**285** POINTS  
OUT OF 325  
PERFORMANCE SCORE



100.0%  
ACCURACY

Average: 67.2%



88.5%  
COMPLETION

Average: 36.9%

**99<sup>th</sup>** National  
Percentile

Average: 101.8 Points

### Hash it Out (Easy)

**40** POINTS  
OUT OF 40

100.0%  
ACCURACY

COMPLETION: 100.0%

Generate hashes for passwords with the MD5, NTLM, SHA1 and SHA256 hashing algorithms.

### Zeitgeist (Easy)

**50** POINTS  
OUT OF 50

100.0%  
ACCURACY

COMPLETION: 100.0%

Crack MD5 hashed passwords with a wordlist.

### Peninsula-Password (Medium)

**50** POINTS  
OUT OF 50

100.0%  
ACCURACY

COMPLETION: 100.0%

Crack NTLM Windows Passwords using the EFF's wordlists.

### DBs (Medium)

**70** POINTS  
OUT OF 70

100.0%  
ACCURACY

COMPLETION: 100.0%

Crack an NTLMv2 hash and Blake2b password to decrypt an MSSQL database.

### Règles (Medium)

**50** POINTS  
OUT OF 50

100.0%  
ACCURACY

COMPLETION: 100.0%

Crack modified passwords from a leaked database using Hashcat's rule attack mode.

### Magic (Hard)

**25** POINTS  
OUT OF 65

100.0%  
ACCURACY

COMPLETION: 40.0%

Crack passwords by creating a wordlist, augmenting permutation rules using known password complexity requirements.





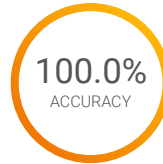


## Scanning & Reconnaissance Module

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

**31** ST PLACE  
OUT OF 4214  
NATIONAL RANK

**300** POINTS  
OUT OF 300  
PERFORMANCE SCORE



Average: 41.8%



Average: 37.2%

**100<sup>th</sup>** National  
Percentile

Average: 105.6 Points

### Open (Easy)

**100** POINTS  
OUT OF 100

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Scan a server to determine information about running services.

### Git A Gander (Medium)

**100** POINTS  
OUT OF 100

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Manually scan a code repository for secrets in its commit history.

### Walk (Hard)

**100** POINTS  
OUT OF 100

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

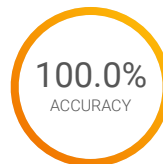
Scan a server to discover an SNMP service and use nmap scripts and default credentials to reveal sensitive information.

## Web Application Exploitation Module

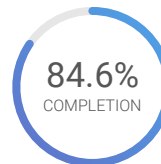
Identify actionable exploits and vulnerabilities and use them to bypass the security measures in online services.

**111** TH PLACE  
OUT OF 4214  
NATIONAL RANK

**245** POINTS  
OUT OF 275  
PERFORMANCE SCORE



Average: 52.7%



Average: 34.5%

**98<sup>th</sup>** National  
Percentile

Average: 104.8 Points

### Something's Fishy (Easy)

**100** POINTS  
OUT OF 100

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Find and exploit a client-side validated function to bypass checks and set an arbitrary score.

### Picto (Medium)

**100** POINTS  
OUT OF 100

**100.0%**  
ACCURACY

COMPLETION: **100.0%**

Exploit open-box XSS on unsanitized rendered output in a browser.

### The Cucumber's Secret (Hard)

**45** POINTS  
OUT OF 75

**100.0%**  
ACCURACY

COMPLETION: **66.7%**

Abuse unsafe Python pickle data streams in a web application.

