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CYBER SKYLINE

The National Cyber League
A Community Where Cybersecurity Is a Passion

James Roberts

NCL Fall 2025 Team Game Scouting Report

Dear James Roberts (Team "SANS.edu 542"),

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/EQUURR765NN6

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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CYBER SKYLINE

NATIONAL CYBER LEAGUE SCORE CARD

NCL FALL 2025 TEAM GAME

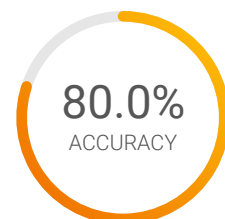
YOUR TOP CATEGORIES

OPEN SOURCE
INTELLIGENCE
100TH PERCENTILE

LOG ANALYSIS
100TH PERCENTILE

WEB APPLICATION
EXPLOITATION
100TH PERCENTILE

NATIONAL RANK
**32ND PLACE
OUT OF 4214**
PERCENTILE
100TH



Average: 56.1%

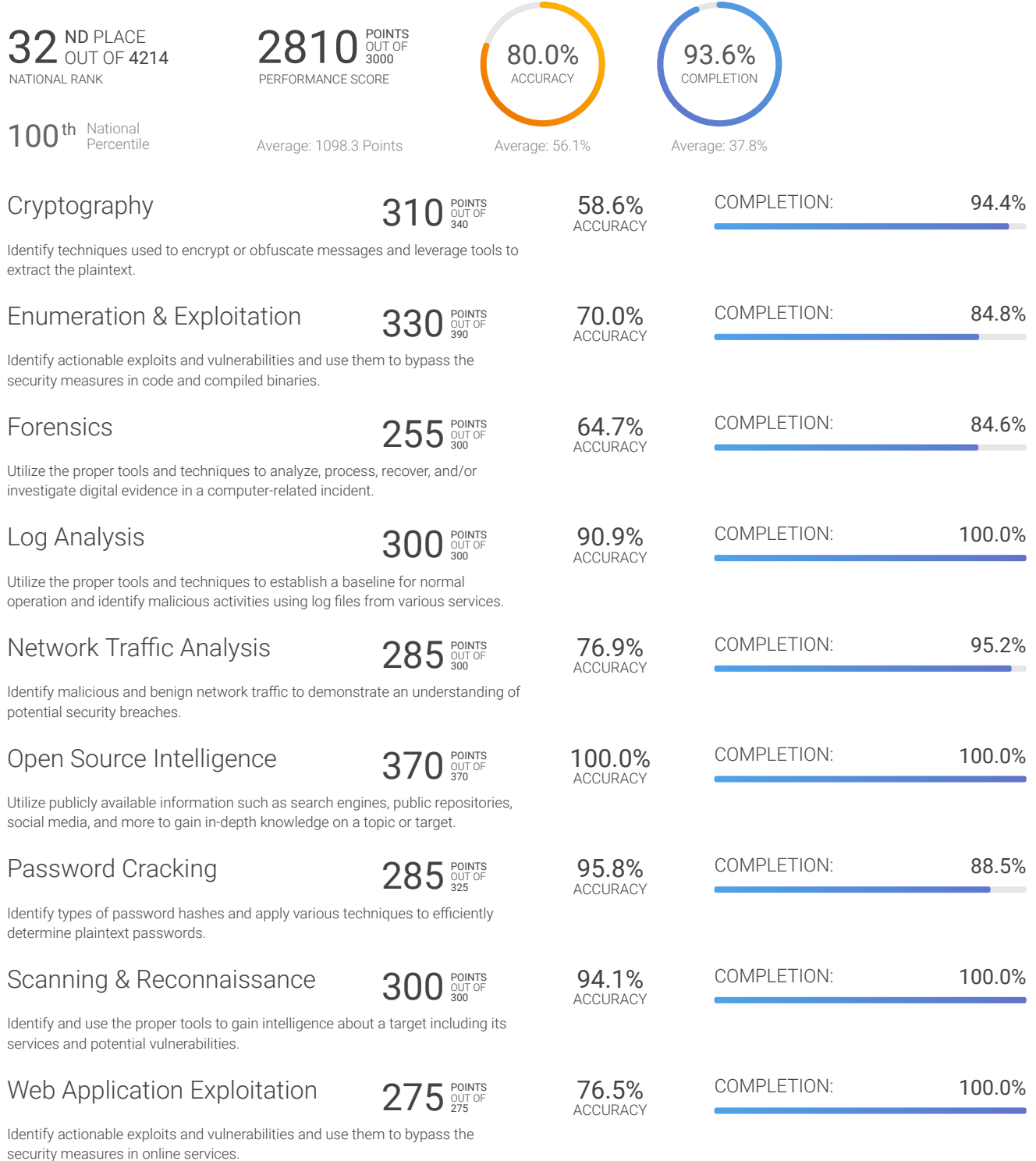
cyberskyline.com/report
ID: EQUURR765NN6

Learn more at 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.



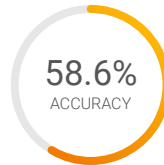


Cryptography Module

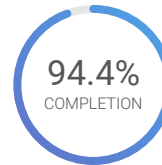
Identify techniques used to encrypt or obfuscate messages and leverage tools to extract the plaintext.

77TH PLACE
OUT OF 4214
NATIONAL RANK

310 POINTS
OUT OF 340
PERFORMANCE SCORE



Average: 40.9%



Average: 39.5%

99th National
Percentile

Average: 119.8 Points

Steganography (Easy)

30 POINTS
OUT OF 30

75.0%
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

60.0%
ACCURACY

COMPLETION: 100.0%

Decode ciphers from popular culture.

Quagmire (Medium)

60 POINTS
OUT OF 60

20.0%
ACCURACY

COMPLETION: 100.0%

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

Crypto Twister (Medium)

75 POINTS
OUT OF 75

100.0%
ACCURACY

COMPLETION: 100.0%

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.



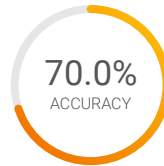


Enumeration & Exploitation Module

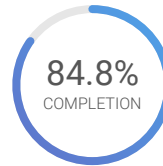
Identify actionable exploits and vulnerabilities and use them to bypass the security measures in code and compiled binaries.

65 TH PLACE
OUT OF 4214
NATIONAL RANK

330 POINTS
OUT OF 390
PERFORMANCE SCORE



Average: 32.1%



Average: 18.7%

99th National
Percentile

Average: 100.3 Points

Cooking Lunch (Easy)

100 POINTS
OUT OF 100

75.0%
ACCURACY

COMPLETION: **100.0%**

Reverse engineer the required input of an obfuscated program.

Poliwhirl (Medium)

100 POINTS
OUT OF 100

100.0%
ACCURACY

COMPLETION: **100.0%**

Reverse engineer an optimized RISC-V binary.

Cooking Dinner (Hard)

20 POINTS
OUT OF 50

16.7%
ACCURACY

COMPLETION: **50.0%**

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

MAINFRAME - Access the Mainframe

110 POINTS
OUT OF 140

76.9%
ACCURACY

COMPLETION: **83.3%**

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



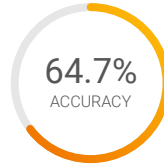


Forensics Module

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

73 RD PLACE
OUT OF 4214
NATIONAL RANK

255 POINTS
OUT OF 300
PERFORMANCE SCORE



Average: 33.6%



Average: 24.8%

99th National
Percentile

Average: 77.7 Points

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)

100 POINTS
OUT OF 100

100.0%
ACCURACY

COMPLETION: **100.0%**

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

Split Keys (Hard)

30 POINTS
OUT OF 75

42.9%
ACCURACY

COMPLETION: **60.0%**

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%**

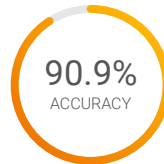
Decode XMI files and crack RACF hashes to get mainframe logins.

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.

25 TH PLACE
OUT OF 4214
NATIONAL RANK

300 POINTS
OUT OF 300
PERFORMANCE SCORE



Average: 40.2%



Average: 43.4%

100th National
Percentile

Average: 120.8 Points

LO(L)G (Easy)

100 POINTS
OUT OF 100

100.0%
ACCURACY

COMPLETION: **100.0%**

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

JSON Query (Medium)

100 POINTS
OUT OF 100

83.3%
ACCURACY

COMPLETION: **100.0%**

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

Chronicles of XP (Hard)

100 POINTS
OUT OF 100

87.5%
ACCURACY

COMPLETION: **100.0%**

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



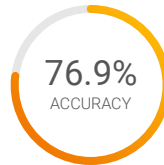


Network Traffic Analysis Module

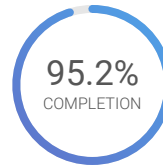
Identify malicious and benign network traffic to demonstrate an understanding of potential security breaches.

35TH PLACE
OUT OF 4214
NATIONAL RANK

285 POINTS
OUT OF 300
PERFORMANCE SCORE



Average: 36.7%



Average: 36.1%

100th National
Percentile

Average: 105.8 Points

Snakes and Packets (Easy)

100 POINTS
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)

100 POINTS
OUT OF 100

66.7%
ACCURACY

COMPLETION: **100.0%**

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

Patient Zero (Hard)

85 POINTS
OUT OF 100

75.0%
ACCURACY

COMPLETION: **85.7%**

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



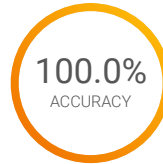


Open Source Intelligence Module

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

10TH PLACE
OUT OF 4214
NATIONAL RANK

370 POINTS
OUT OF 370
PERFORMANCE SCORE



Average: 55.2%



Average: 64.9%

100th 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

100.0%
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

100.0%
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

100.0%
ACCURACY

COMPLETION: **100.0%**

Triangulate a location using EXIF timestamp data and shadow lengths.



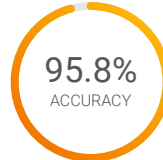


Password Cracking Module

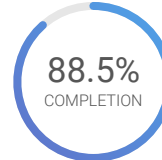
Identify types of password hashes and apply various techniques to efficiently determine plaintext passwords.

56 TH PLACE
OUT OF 4214
NATIONAL RANK

285 POINTS
OUT OF 325
PERFORMANCE SCORE



Average: 67.2%



Average: 36.9%

99th 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

75.0%
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.



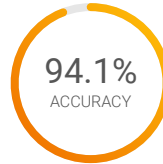


Scanning & Reconnaissance Module

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

48TH PLACE
OUT OF 4214
NATIONAL RANK

300 POINTS
OUT OF 300
PERFORMANCE SCORE



Average: 41.8%



Average: 37.2%

99th 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

85.7%
ACCURACY

COMPLETION: **100.0%**

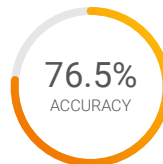
Scan a server to discover an SNMP service and use nmap scripts and default credentials to reveal sensitive information.

Web Application Exploitation Module

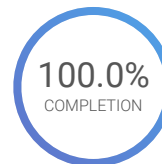
Identify actionable exploits and vulnerabilities and use them to bypass the security measures in online services.

34TH PLACE
OUT OF 4214
NATIONAL RANK

275 POINTS
OUT OF 275
PERFORMANCE SCORE



Average: 52.7%



Average: 34.5%

100th 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)

75 POINTS
OUT OF 75

60.0%
ACCURACY

COMPLETION: **100.0%**

Abuse unsafe Python pickle data streams in a web application.

