NCL Fall 2020 Individual Game Scouting Report

Dear Mark Escott,

Congratulations on a great NCL 2020 Fall Individual Game!

National Cyber League (NCL)

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. The NCL is a next-generation learning and gaming environment using high-fidelity and scenario-based challenges from Cyber Skyline. The challenges are designed around industry recognized and performance-based exam objectives to further develop student skills. Learn more about the NCL at www.nationalcyberleague.org. If you have any questions regarding the information in this report please inquire at info@nationalcyberleague.org.

NCL 2020 Fall Season

The NCL 2020 Fall Season was designed to develop and validate player knowledge and skills in preparation for further learning, career readiness, industry certifications, and other cybersecurity competitions. Hosted challenges in the NCL Gymnasium were made available to all players and coaches and aligned to the games. The games were designed around performance-based exam objectives of the CompTIA Security+™ certification and the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework published by the National Institute of Standards and Technology (NIST).

The NCL 2020 Fall Season began with the Preseason round to group players into one of three competition brackets based on skill level: Gold (top 15% of all players nationally - 680 players), Silver (the next 35% of all players nationally - 1601 players) or Bronze (the next 50% of all players nationally - 2284 players). Players who did not participate in the Preseason were not bracketed or ranked. This made the Individual Game more engaging by grouping players with similar knowledge and skill levels.

At the beginning of the NCL 2020 Fall Season, 6610 students/players and 443 faculty/coaches from more than 530 two- and four-year schools across all 50 U.S. states registered to play.

The Individual Game Capture the Flag (CTF) event took place from October 23 through October 25. The Team Game CTF event took place from November 6 through November 8. The games were conducted in real-time for students across the country.

The NCL 2020 Fall Season was powered by Cyber Skyline's cloud-based skills evaluation platform. Cyber Skyline hosted the scenario-driven cybersecurity challenges for all players to compete and track their progress in real-time.

To validate this report, please access: cyberskyline.com/report/7MUG37MD4984

Thank you for your participation in the NCL 2020 Fall 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. Dan Manson
NCL Commissioner

NCL Scouting Report

What follows is a customized NCL Scouting Report of your performance in the NCL 2020 Fall Individual Game. We hope you find it to be valuable in both confirming your skills and identifying areas for improvement. In addition, the NCL Scouting Report can be used as part of any job application, as it provides an external validation of skills as demonstrated in competitive gameplay based on industry-recognized certification exam and framework objectives.

The following definitions apply to your performance across a range of cybersecurity scenarios

- **National Rank:** overall place with respect to all players, across all Brackets
- **Bracket Rank:** overall place within the Bracket
- **Performance Score:** total points earned; the higher the score, the higher the ranking
- **Accuracy:** percentage of flag submissions that were correct (total flag captures divided by total flag attempts).
- **Completion:** percentage of possible flags submitted (total flag captures divided by total possible flags).

The following are the categories of cybersecurity scenarios that you were evaluated against:

1. Cryptography
   Information is key, but it's not going to be easy to get it. Decipher these hidden messages to learn what is really going on.
2. Enumeration and Exploitation
   Hacking isn't just for the malicious actors, all cybersecurity professionals need to know it. Try to break some training programs and some of the hackers' software. You might even be able to secure your own programs.
3. Forensics
   Do you know where to look for the evidence? Help find the forensic trail that malicious actors leave behind.
4. Log Analysis
   Logs hold a ton of information. The hard part is using them to learn what happened. Analyze these logs to determine what the hackers have been up to.
5. Network Traffic Analysis
   Determine what happened and exactly when it happened by looking at network traffic captures.
6. Open Source Intelligence
   Obtain information using publicly available data and tools.
7. Password Cracking
   Try your hand at cracking these passwords.
8. Scanning & Reconnaissance
   Before you catch the hackers, you need to find them. Put your tracking skills to the test and find out what the hackers are up to.
9. Web Application Exploitation
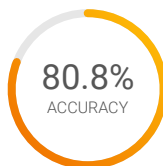   Find and demonstrate vulnerabilities in various city systems.

NCL Fall 2020 Preseason

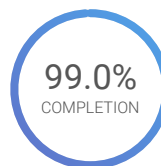**120**TH PLACE OUT OF **6070**
NATIONAL RANK

99th
National Percentile

1665 POINTS OUT OF 1865
PERFORMANCE SCORE

Averages
National: 566.4

80.8%
ACCURACY

National: 61.9%

99.0%
COMPLETION

National: 44.5%

Based on Preseason performance, **Mark Escott** was placed into the **Gold Bracket** for the Individual Game.

NCL Fall 2020 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.
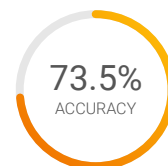
91 ST PLACE
OUT OF **6011**
NATIONAL RANK

87 TH PLACE
OUT OF **680**
GOLD BRACKET RANK

2125 POINTS
OUT OF **3000**
PERFORMANCE SCORE

73.5% ACCURACY

86.7% COMPLETION

99th
National Percentile

88th
Gold Bracket Percentile

Averages
National: 634.9
Gold Bracket: 1399.5

National: 62.7%
Gold Bracket: 70.2%
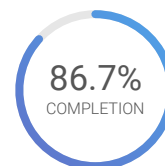
National: 24.6%
Gold Bracket: 53.9%

Category	Points	Accuracy	Completion
Cryptography	150 POINTS OUT OF 310	66.7% ACCURACY	66.7%
Enumeration and Exploitation	130 POINTS OUT OF 315	72.7% ACCURACY	57.1%
Forensics	335 POINTS OUT OF 335	55.2% ACCURACY	100.0%
Log Analysis	325 POINTS OUT OF 340	72.1% ACCURACY	93.9%
Network Traffic Analysis	305 POINTS OUT OF 355	63.0% ACCURACY	90.6%
Open Source Intelligence	170 POINTS OUT OF 245	83.3% ACCURACY	90.9%
Password Cracking	275 POINTS OUT OF 355	95.2% ACCURACY	90.9%
Scanning & Reconnaissance	270 POINTS OUT OF 315	100.0% ACCURACY	94.7%
Web Application Exploitation	65 POINTS OUT OF 330	100.0% ACCURACY	50.0%

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

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Cryptography Module

Information is key, but it's not going to be easy to get it. Decipher these hidden messages to learn what is really going on.
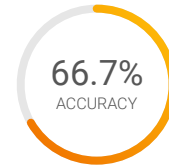
521 ST PLACE OUT OF **6011**
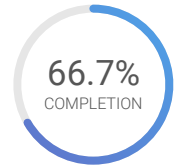NATIONAL RANK

309 TH PLACE OUT OF **680**
GOLD BRACKET RANK

150 POINTS OUT OF 310
PERFORMANCE SCORE

66.7% ACCURACY

66.7% COMPLETION

92nd
National Percentile

55th
Gold Bracket Percentile

Averages
National: 97.3
Gold Bracket: 142.7

National: 84.2%
Gold Bracket: 87.4%

National: 50.1%
Gold Bracket: 63.2%

Decoding 1 (Easy)	**30** POINTS OUT OF 30	100.0% ACCURACY	COMPLETION: 100.0%
Decoding 2 (Easy)	**30** POINTS OUT OF 30	100.0% ACCURACY	COMPLETION: 100.0%
Decoding 3 (Medium)	**25** POINTS OUT OF 25	100.0% ACCURACY	COMPLETION: 100.0%
Decoding 4 (Medium)	**0** POINTS OUT OF 35	0.0% ACCURACY	COMPLETION: 0.0%
Decoding 5 (Hard)	**35** POINTS OUT OF 35	100.0% ACCURACY	COMPLETION: 100.0%
Decoding 6 (Hard)	**0** POINTS OUT OF 75	0.0% ACCURACY	COMPLETION: 0.0%
Steg (Easy)	**30** POINTS OUT OF 30	100.0% ACCURACY	COMPLETION: 100.0%
Secure Comms (Medium)	**0** POINTS OUT OF 50	0.0% ACCURACY	COMPLETION: 0.0%

POWERED BY **CYBER SKYLINE**

POWERED BY
CYBER SKYLINE

The National Cyber League
Where Cybersecurity is a Passion

Mark Escott
mark.escott@snhu.edu

Enumeration and Exploitation Module

Hacking isn't just for the malicious actors, all cybersecurity professionals need to know it. Try to break some training programs and some of the hackers' software. You might even be able to secure your own programs.

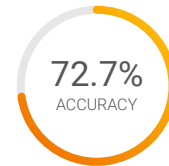**235** TH PLACE OUT OF **6011**
NATIONAL RANK

196 TH PLACE OUT OF **680**
GOLD BRACKET RANK

130 POINTS OUT OF 315
PERFORMANCE SCORE

72.7% ACCURACY

57.1% COMPLETION

97th
National Percentile

72nd
Gold Bracket Percentile

Averages
National: 43.9
Gold Bracket: 96.9

National: 53.2%
Gold Bracket: 66.6%
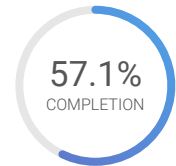
National: 18.4%
Gold Bracket: 36.1%

	Points	Accuracy	Completion
Heckin Snek (Easy)	60 POINTS OUT OF 60	100.0% ACCURACY	COMPLETION: 100.0%
Dotinator (Medium)	35 POINTS OUT OF 70	100.0% ACCURACY	COMPLETION: 66.7%
Core Fault (Medium)	20 POINTS OUT OF 75	40.0% ACCURACY	COMPLETION: 40.0%
Trivia Game (Hard)	15 POINTS OUT OF 110	100.0% ACCURACY	COMPLETION: 50.0%

Forensics Module

Do you know where to look for the evidence? Help find the forensic trail that malicious actors leave behind.
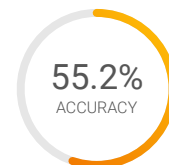
70 TH PLACE OUT OF **6011**
NATIONAL RANK

62 ND PLACE OUT OF **680**
GOLD BRACKET RANK

335 POINTS OUT OF 335
PERFORMANCE SCORE

55.2% ACCURACY

100.0% COMPLETION

99th
National Percentile

91st
Gold Bracket Percentile

Averages
National: 95.3
Gold Bracket: 177.0

National: 47.3%
Gold Bracket: 64.8%

National: 31.2%
Gold Bracket: 56.9%

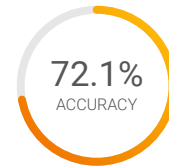|	Points	Accuracy	Completion
Offer Letter (Easy)	70 POINTS OUT OF 70	80.0% ACCURACY	COMPLETION: 100.0%
Coffee Break (Medium)	75 POINTS OUT OF 75	66.7% ACCURACY	COMPLETION: 100.0%
Character Traits (Medium)	90 POINTS OUT OF 90	62.5% ACCURACY	COMPLETION: 100.0%
Firmware (Hard)	100 POINTS OUT OF 100	38.5% ACCURACY	COMPLETION: 100.0%

Log Analysis Module

Logs hold a ton of information. The hard part is using them to learn what happened. Analyze these logs to determine what the hackers have been up to.
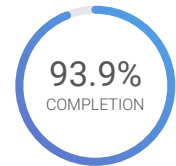
49 TH PLACE
OUT OF **6011**
NATIONAL RANK

47 TH PLACE
OUT OF **680**
GOLD BRACKET RANK

325 POINTS
OUT OF 340
PERFORMANCE SCORE

72.1%
ACCURACY

93.9%
COMPLETION

100th
National Percentile

94th
Gold Bracket Percentile

Averages
National: 99.1
Gold Bracket: 181.8

National: 37.9%
Gold Bracket: 58.8%

National: 25.5%
Gold Bracket: 50.1%

|				
Sysmon (Easy)	**95** POINTS OUT OF 95	100.0% ACCURACY	COMPLETION:	100.0%
Home Wrecked (Medium)	**105** POINTS OUT OF 105	77.8% ACCURACY	COMPLETION:	100.0%
Database Backup (Hard)	**125** POINTS OUT OF 140	61.5% ACCURACY	COMPLETION:	88.9%

Network Traffic Analysis Module

Determine what happened and exactly when it happened by looking at network traffic captures.

45 TH PLACE
OUT OF **6011**
NATIONAL RANK

41 ST PLACE
OUT OF **680**
GOLD BRACKET RANK

305 POINTS
OUT OF 355
PERFORMANCE SCORE

63.0%
ACCURACY

90.6%
COMPLETION

100th
National Percentile

94th
Gold Bracket Percentile

Averages
National: 105.5
Gold Bracket: 184.3
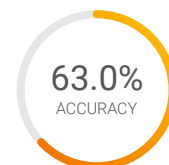
National: 41.4%
Gold Bracket: 55.9%
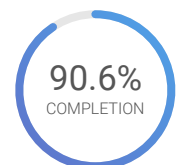
National: 33.7%
Gold Bracket: 57.6%

The Group Chat (Easy)	**70** POINTS OUT OF 70	100.0% ACCURACY	COMPLETION:	100.0%
Cracking (Medium)	**70** POINTS OUT OF 70	100.0% ACCURACY	COMPLETION:	100.0%
Web Scanner (Medium)	**85** POINTS OUT OF 100	47.6% ACCURACY	COMPLETION:	90.9%
Space (Hard)	**80** POINTS OUT OF 115	53.8% ACCURACY	COMPLETION:	77.8%

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Open Source Intelligence Module

Obtain information using publicly available data and tools.
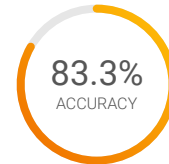
772 ND PLACE OUT OF **6011**
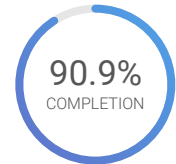NATIONAL RANK

323 RD PLACE OUT OF **680**
GOLD BRACKET RANK

170 POINTS OUT OF 245
PERFORMANCE SCORE

83.3% ACCURACY

90.9% COMPLETION

88th
National Percentile

53rd
Gold Bracket Percentile

Averages
National: 116.3
Gold Bracket: 168.4

National: 76.8%
Gold Bracket: 85.0%

National: 68.0%
Gold Bracket: 85.9%

	Points	Accuracy	Completion
Rules of Conduct (Easy)	15 POINTS OUT OF 15	100.0% ACCURACY	COMPLETION: 100.0%
Maze (Easy)	25 POINTS OUT OF 25	100.0% ACCURACY	COMPLETION: 100.0%
Flag Location (Easy)	50 POINTS OUT OF 50	100.0% ACCURACY	COMPLETION: 100.0%
Target Building (Medium)	80 POINTS OUT OF 80	60.0% ACCURACY	COMPLETION: 100.0%
Base of Operations (Hard)	0 POINTS OUT OF 75	0.0% ACCURACY	COMPLETION: 0.0%

Password Cracking Module

Try your hand at cracking these passwords.

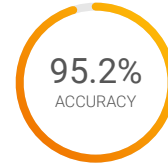**178** TH PLACE OUT OF **6011**
NATIONAL RANK

135 TH PLACE OUT OF **680**
GOLD BRACKET RANK

275 POINTS OUT OF 355
PERFORMANCE SCORE

95.2% ACCURACY

90.9% COMPLETION

98th
National Percentile

81st
Gold Bracket Percentile

Averages
National: 121.8
Gold Bracket: 212.2

National: 87.4%
Gold Bracket: 93.1%
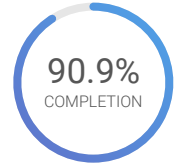
National: 42.5%
Gold Bracket: 70.6%

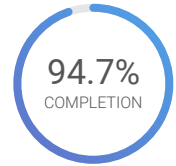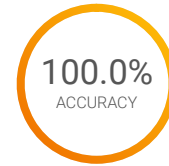|	Points	Accuracy	Completion
Hashing (Easy)	30 POINTS OUT OF 30	75.0% ACCURACY	100.0%
Cracking 1 (Easy)	45 POINTS OUT OF 45	100.0% ACCURACY	100.0%
Cracking 2 (Easy)	45 POINTS OUT OF 45	100.0% ACCURACY	100.0%
Cracking 3 (Medium)	45 POINTS OUT OF 45	100.0% ACCURACY	100.0%
Cracking 4 (Hard)	45 POINTS OUT OF 45	100.0% ACCURACY	100.0%
Cracking 5 (Hard)	35 POINTS OUT OF 115	100.0% ACCURACY	60.0%
PDF (Medium)	30 POINTS OUT OF 30	100.0% ACCURACY	100.0%

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Scanning & Reconnaissance Module

Before you catch the hackers, you need to find them. Put your tracking skills to the test and find out what the hackers are up to.

40 TH PLACE OUT OF **6011**
NATIONAL RANK

37 TH PLACE OUT OF **680**
GOLD BRACKET RANK

270 POINTS OUT OF 315
PERFORMANCE SCORE

100.0% ACCURACY

94.7% COMPLETION

100th
National Percentile

95th
Gold Bracket Percentile

Averages
National: 85.1
Gold Bracket: 141.9

National: 72.5%
Gold Bracket: 84.1%

National: 31.8%
Gold Bracket: 51.1%

|				
Hidden Treasure (Easy)	**100** POINTS OUT OF 100	**100.0%** ACCURACY	COMPLETION:	**100.0%**
Flag Hunt (Medium)	**60** POINTS OUT OF 105	**100.0%** ACCURACY	COMPLETION:	**83.3%**
Front Desk (Hard)	**110** POINTS OUT OF 110	**100.0%** ACCURACY	COMPLETION:	**100.0%**

Web Application Exploitation Module

Find and demonstrate vulnerabilities in various city systems.

399 TH PLACE OUT OF **6011**
NATIONAL RANK

245 TH PLACE OUT OF **680**
GOLD BRACKET RANK

65 POINTS OUT OF 330
PERFORMANCE SCORE

100.0% ACCURACY
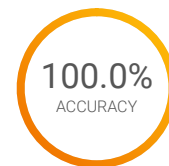
50.0% COMPLETION

94th
National Percentile

64th
Gold Bracket Percentile

Averages
National: 59.5
Gold Bracket: 96.8

National: 82.6%
Gold Bracket: 93.2%

National: 32.5%
Gold Bracket: 47.0%

Amoonguss (Easy)	**55** POINTS OUT OF 95	**100.0%** ACCURACY	COMPLETION:	**66.7%**
Poker Night (Medium)	**0** POINTS OUT OF 100	**0.0%** ACCURACY	COMPLETION:	**0.0%**
Mothership (Hard)	**10** POINTS OUT OF 135	**100.0%** ACCURACY	COMPLETION:	**50.0%**