



# NCL Spring 2021 Individual Game Scouting Report

Dear Simon Chu,

Congratulations on a great NCL 2021 Spring 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. If you have any questions regarding the information in this report please inquire at [info@nationalcyberleague.org](mailto:info@nationalcyberleague.org).

## NCL 2021 Spring Season

The NCL 2021 Spring Season was designed to develop and validate player knowledge and skills in preparation for further learning, career readiness, industry certifications, and other cybersecurity competitions. The games were designed around performance-based exam objectives of CompTIA certifications and the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework published by the National Institute of Standards and Technology (NIST).

The NCL 2021 Spring 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 - 629 players), Silver (the next 35% of all players nationally - 1456 players) or Bronze (the next 50% of all players nationally - 2094 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 together. At the beginning of the NCL 2021 Spring Season, 6380 students/players and 425 faculty/coaches from more than 520 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 March 26 through March 28. The Team Game CTF event took place from April 9 through April 11. The games were conducted in real-time for students across the country.

The NCL 2021 Spring 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/T7P2BJRE4Y5G](https://cyberskyline.com/report/T7P2BJRE4Y5G)

**CompTIA** Based on the the performance detailed in this Scouting Report, Simon Chu has earned **5 hours** of Continuing Education Units (CEUs) as approved by CompTIA. You can learn more about the NCL - CompTIA alignment via [nationalcyberleague.org/comptia](https://nationalcyberleague.org/comptia)

Thank you for your participation in the NCL 2021 Spring 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 2021 Spring 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**  
Identify techniques used to encrypt or obfuscate messages and leverage tools to extract the plaintext.
2. **Enumeration & Exploitation**  
Identify actionable exploits and vulnerabilities and use them to bypass the security measures in code and compiled binaries.
3. **Forensics**  
Utilize the proper tools and techniques to analyze, process, recover, and/or investigate digital evidence in a computer-related incident.
4. **Log Analysis**  
Utilize the proper tools and techniques to establish a baseline for normal operation and identify malicious activities using log files from various services.
5. **Network Traffic Analysis**  
Identify malicious and benign network traffic to demonstrate an understanding of potential security breaches.
6. **Open Source Intelligence**  
Utilize publicly available information such as search engines, public repositories, social media, and more to gain in-depth knowledge on a topic or target.
7. **Password Cracking**  
Identify types of password hashes and apply various techniques to efficiently determine plaintext passwords.
8. **Scanning & Reconnaissance**  
Identify and use the proper tools to gain intelligence about a target including its services and potential vulnerabilities.
9. **Web Application Exploitation**  
Identify actionable exploits and vulnerabilities and use them to bypass the security measures in online services.

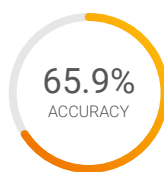
## NCL Spring 2021 Preseason

**193** RD PLACE  
OUT OF 5794  
NATIONAL RANK

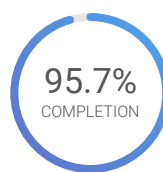
**97<sup>th</sup>**  
National Percentile

**1535** POINTS  
OUT OF 1785  
PERFORMANCE SCORE

Averages  
National: 615.1



National: 71.2%



National: 48.5%

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





## NCL Spring 2021 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.

**343** RD PLACE  
OUT OF 4180  
NATIONAL RANK

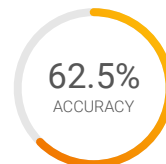
**92<sup>nd</sup>**  
National Percentile

**289** TH PLACE  
OUT OF 628  
GOLD BRACKET RANK

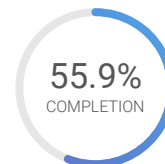
**54<sup>th</sup>**  
Gold Bracket Percentile

**1335** POINTS  
OUT OF 3000  
PERFORMANCE SCORE

Averages  
National: 607.9  
Gold Bracket: 1352.6



National: 66.1%  
Gold Bracket: 70.5%



National: 26.3%  
Gold Bracket: 54.4%

Cryptography	<b>130</b> POINTS OUT OF 325	<b>100.0%</b> ACCURACY	COMPLETION: <b>53.3%</b>
Enumeration & Exploitation	<b>80</b> POINTS OUT OF 300	<b>38.5%</b> ACCURACY	COMPLETION: <b>35.7%</b>
Forensics	<b>90</b> POINTS OUT OF 310	<b>38.5%</b> ACCURACY	COMPLETION: <b>27.8%</b>
Log Analysis	<b>280</b> POINTS OUT OF 360	<b>50.0%</b> ACCURACY	COMPLETION: <b>77.8%</b>
Network Traffic Analysis	<b>155</b> POINTS OUT OF 365	<b>65.0%</b> ACCURACY	COMPLETION: <b>65.0%</b>
Open Source Intelligence	<b>300</b> POINTS OUT OF 300	<b>74.1%</b> ACCURACY	COMPLETION: <b>100.0%</b>
Password Cracking	<b>165</b> POINTS OUT OF 310	<b>87.5%</b> ACCURACY	COMPLETION: <b>60.9%</b>
Scanning & Reconnaissance	<b>15</b> POINTS OUT OF 300	<b>100.0%</b> ACCURACY	COMPLETION: <b>9.1%</b>
Web Application Exploitation	<b>20</b> POINTS OUT OF 330	<b>66.7%</b> ACCURACY	COMPLETION: <b>16.7%</b>

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.

**1189** <sup>TH PLACE</sup>  
OUT OF 4180  
NATIONAL RANK

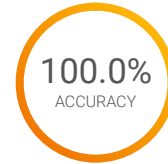
**72<sup>nd</sup>**  
National Percentile

**508** <sup>TH PLACE</sup>  
OUT OF 628  
GOLD BRACKET RANK

**20<sup>th</sup>**  
Gold Bracket Percentile

**130** <sup>POINTS OUT OF 325</sup>  
PERFORMANCE SCORE

Averages  
National: 122.0  
Gold Bracket: 168.6



National: 80.8%  
Gold Bracket: 87.1%



National: 48.1%  
Gold Bracket: 61.9%

Decoding 1 (Easy)	<b>30</b> <sup>POINTS OUT OF 30</sup>	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Decoding 2 (Easy)	<b>20</b> <sup>POINTS OUT OF 20</sup>	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Decoding 3 (Easy)	<b>20</b> <sup>POINTS OUT OF 20</sup>	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Decoding 4 (Medium)	<b>20</b> <sup>POINTS OUT OF 20</sup>	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Decoding 5 (Hard)	<b>0</b> <sup>POINTS OUT OF 30</sup>	<b>0.0%</b> ACCURACY	COMPLETION:	<b>0.0%</b>
Puzzle (Easy)	<b>40</b> <sup>POINTS OUT OF 40</sup>	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Hidden (Medium)	<b>0</b> <sup>POINTS OUT OF 50</sup>	<b>0.0%</b> ACCURACY	COMPLETION:	<b>0.0%</b>
Bubba (Medium)	<b>0</b> <sup>POINTS OUT OF 50</sup>	<b>0.0%</b> ACCURACY	COMPLETION:	<b>0.0%</b>
Unknown (Hard)	<b>0</b> <sup>POINTS OUT OF 65</sup>	<b>0.0%</b> ACCURACY	COMPLETION:	<b>0.0%</b>





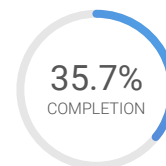
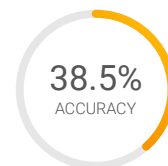
## Enumeration & Exploitation Module

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

**441** <sup>ST PLACE</sup>  
OUT OF 4180  
NATIONAL RANK

**317** <sup>TH PLACE</sup>  
OUT OF 628  
GOLD BRACKET RANK

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



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

**50<sup>th</sup>**  
Gold Bracket Percentile

Averages  
National: 41.6  
Gold Bracket: 96.8

National: 42.9%  
Gold Bracket: 68.4%

National: 18.2%  
Gold Bracket: 39.6%

Open Up (Easy)

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

**33.3%**  
ACCURACY

COMPLETION: **66.7%**

Popping Boxes (Medium)

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

**0.0%**  
ACCURACY

COMPLETION: **0.0%**

Trash Compactor (Hard)

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

**100.0%**  
ACCURACY

COMPLETION: **25.0%**

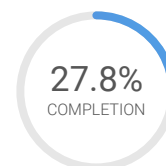
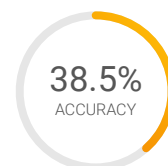
## Forensics Module

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

**592** <sup>ND PLACE</sup>  
OUT OF 4180  
NATIONAL RANK

**361** <sup>ST PLACE</sup>  
OUT OF 628  
GOLD BRACKET RANK

**90** <sup>POINTS OUT OF 310</sup>  
PERFORMANCE SCORE



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

**43<sup>rd</sup>**  
Gold Bracket Percentile

Averages  
National: 72.6  
Gold Bracket: 135.8

National: 39.5%  
Gold Bracket: 49.4%

National: 22.7%  
Gold Bracket: 40.3%

Excellent Tracking (Easy)

**45** <sup>POINTS OUT OF 75</sup>

**75.0%**  
ACCURACY

COMPLETION: **75.0%**

Image File (Medium)

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

**22.2%**  
ACCURACY

COMPLETION: **50.0%**

Sessions (Hard)

**0** <sup>POINTS OUT OF 135</sup>

**0.0%**  
ACCURACY

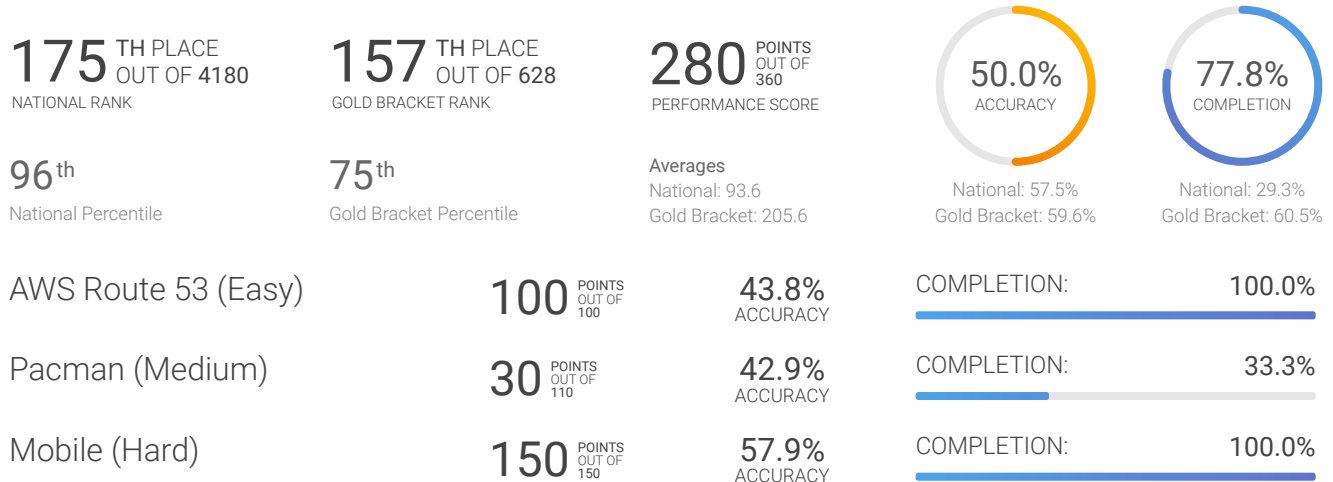
COMPLETION: **0.0%**





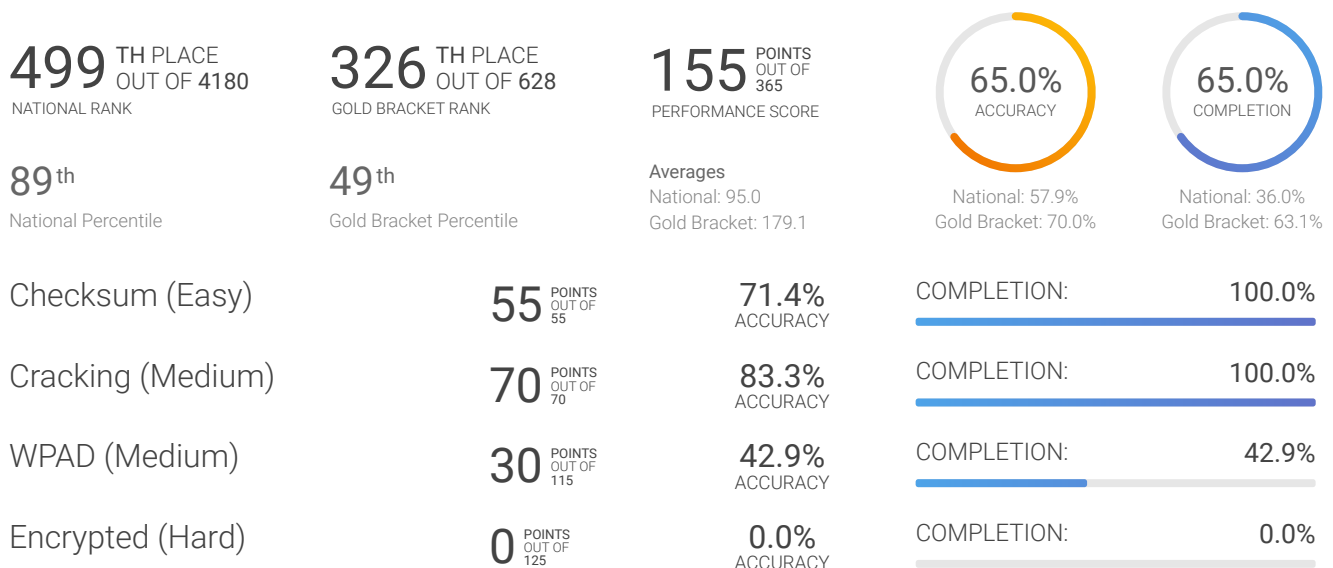
## Log Analysis Module

Utilize the proper tools and techniques to establish a baseline for normal operation and identify malicious activities using log files from various services.



## Network Traffic Analysis Module

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





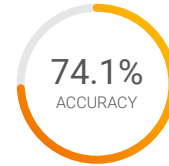
## Open Source Intelligence Module

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

**72** ND PLACE  
OUT OF 4180  
NATIONAL RANK

**63** RD PLACE  
OUT OF 628  
GOLD BRACKET RANK

**300** POINTS  
OUT OF 300  
PERFORMANCE SCORE



National: 73.4%  
Gold Bracket: 73.6%



National: 53.7%  
Gold Bracket: 73.0%

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

**90<sup>th</sup>**  
Gold Bracket Percentile

Averages  
National: 115.4  
Gold Bracket: 184.7

Rules of Conduct (Easy)	<b>15</b> POINTS OUT OF 15	<b>75.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Breached Passwords (Easy)	<b>50</b> POINTS OUT OF 50	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Database Lookup (Medium)	<b>65</b> POINTS OUT OF 65	<b>58.3%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Covered QR (Medium)	<b>70</b> POINTS OUT OF 70	<b>80.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Fake Profile (Hard)	<b>100</b> POINTS OUT OF 100	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>





## Password Cracking Module

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

**873** RD PLACE  
OUT OF 4180  
NATIONAL RANK

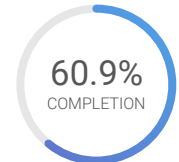
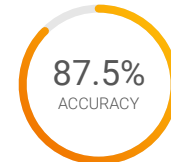
**80<sup>th</sup>**  
National Percentile

**476** TH PLACE  
OUT OF 628  
GOLD BRACKET RANK

**25<sup>th</sup>**  
Gold Bracket Percentile

**165** POINTS  
OUT OF 310  
PERFORMANCE SCORE

Averages  
National: 110.5  
Gold Bracket: 205.6



Hashing (Easy)	<b>15</b> POINTS OUT OF 15	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Cracking 1 (Easy)	<b>30</b> POINTS OUT OF 30	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Cracking 2 (Easy)	<b>0</b> POINTS OUT OF 45	<b>0.0%</b> ACCURACY	COMPLETION:	<b>0.0%</b>
Cracking 3 (Medium)	<b>45</b> POINTS OUT OF 45	<b>60.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Cracking 4 (Hard)	<b>45</b> POINTS OUT OF 45	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>
Cracking 5 (Hard)	<b>0</b> POINTS OUT OF 100	<b>0.0%</b> ACCURACY	COMPLETION:	<b>0.0%</b>
Zip (Medium)	<b>30</b> POINTS OUT OF 30	<b>100.0%</b> ACCURACY	COMPLETION:	<b>100.0%</b>

## Scanning & Reconnaissance Module

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

**1001** ST PLACE  
OUT OF 4180  
NATIONAL RANK

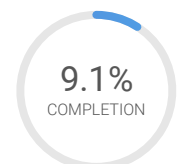
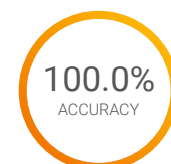
**77<sup>th</sup>**  
National Percentile

**488** TH PLACE  
OUT OF 628  
GOLD BRACKET RANK

**23<sup>rd</sup>**  
Gold Bracket Percentile

**15** POINTS  
OUT OF 300  
PERFORMANCE SCORE

Averages  
National: 50.6  
Gold Bracket: 77.8



Hidden Treasure (Easy)	<b>15</b> POINTS OUT OF 100	<b>100.0%</b> ACCURACY	COMPLETION:	<b>20.0%</b>
TeamSpeak (Medium)	<b>0</b> POINTS OUT OF 100	<b>0.0%</b> ACCURACY	COMPLETION:	<b>0.0%</b>
Router (Hard)	<b>0</b> POINTS OUT OF 100	<b>0.0%</b> ACCURACY	COMPLETION:	<b>0.0%</b>







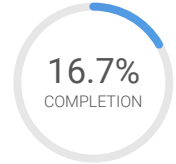
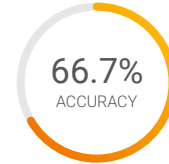
## Web Application Exploitation Module

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

**868** TH PLACE  
OUT OF 4180  
NATIONAL RANK

**411** TH PLACE  
OUT OF 628  
GOLD BRACKET RANK

**20** POINTS  
OUT OF 330  
PERFORMANCE SCORE



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

**35<sup>th</sup>**  
Gold Bracket Percentile

Averages  
National: 54.2  
Gold Bracket: 102.8

National: 60.3%  
Gold Bracket: 73.7%

National: 26.6%  
Gold Bracket: 43.5%

Doge Community (Easy)

**0** POINTS  
OUT OF 100

**0.0%**  
ACCURACY

COMPLETION: **0.0%**

Infosec Blog (Medium)

**20** POINTS  
OUT OF 110

**100.0%**  
ACCURACY

COMPLETION: **40.0%**

Hacker Login (Hard)

**0** POINTS  
OUT OF 120

**0.0%**  
ACCURACY

COMPLETION: **0.0%**

