

NCL Spring 2017 Season Scouting Report

Dear Bohan Zhang,

Congratulations on a great NCL Spring 2017 Season!

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. Using lab exercises designed around industry-recognized performance-based exam objectives and aligned with individual and team games, the NCL is a first-of-its-kind ongoing experiment in learning and gaming using next-generation high-fidelity simulation environments. Learn more about the NCL at www.nationalcyberleague.org. If you are interested in validating the information in this report, explore the 2017 Spring season at www.nationalcyberleague.org/spring-season or inquire at info@nationalcyberleague.org.

NCL Spring 2017 Season

The NCL Spring 2017 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 lab exercises in the NCL Gymnasiums were made available to all players and coaches and aligned to the games. Both the lab exercises and games were designed around performance-based exam objectives of the CompTIA Security+ $^{\text{TM}}$ and EC-Council Certified Ethical Hacker (CEH) $^{\text{TM}}$ certifications.

The Spring 2017 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 - 183 players), Silver (the next 35% of all players nationally - 424 players) or Bronze (the next 50% of all players nationally - 605 players). Players who did not participate in the Preseason were not ranked. This made the Regular season more fun and engaging by grouping players with similar knowledge and skill levels and providing them with appropriate challenges.

At the beginning of the Spring 2017 Season, 1,891 students/players (up from 978 in 2016) and 269 faculty/coaches (up from 214 in 2016) from 291 two- and four-year schools in 43 U.S. states (up from 40 in 2016) registered to play in the Preseason/Regular Season.



There was one Capture the Flag (CTF) Regular Season game optimized for individuals: April 21 through April 23, which was conducted in real-time, during the same time window, for students across the country.

There was one virtual National Championship Postseason game, optimized for organized team play, April 28 through April 30. The event included 152 teams from 108 college/universities in 35 states.

NCL Scouting Report

What follows is a customized NCL Scouting Report of your performance in both the Pre- and Regular Season games. We hope you find it to be valuable in both confirming the skills you demonstrated competencies in, as well as 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 game play based on industry-recognized certification performance-based exam objectives.

The following definitions apply to your performance across a range of games, optimized for individuals:

- Bracket: Gold, Silver, or Bronze; based on the Preseason Round
- Bracket Rank: overall nationally, by Bracket
- National Rank: overall place with respect to all players, across all Brackets
- Total Score: total combined flag points; the higher the score, the higher the ranking
- Total Flag Captures: the combined number of successful flag captures/submissions
- Total Flag Attempts: the combined number of flags submitted to the Cyber Skyline Platform
- Accuracy: percentage of flag submissions that were correct. Formula: Total Flag Captures divided by Total Flag Attempts





Preseason Round

The top player for Preseason Round captured 66 flags out of 66 total flags, scoring 1230 points out of 1230 total points, and had an accuracy of 91.67%. On average, players in this round captured 41 flags, 667 points, and had an accuracy of 56.19% in the following competencies:

Cryptography • Log Analysis • Network Traffic Analysis • Open Source Intelligence

Bracket	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
None	598	710	47	98	47.96%

Regular Season Round

The top player for Regular Season Round captured 151 flags out of 151 total flags, scoring 3635 points out of 3645 total points, and had an accuracy of 94.38%. On average, players in this round captured 55 flags, 813 points, and had an accuracy of 64.30% in the following competencies:

Cryptography • Enumeration and Exploitation • Log Analysis • Network Traffic Analysis • Open Source Intelligence • Password Cracking • Scanning • Web Application Exploitation • Wireless Access Exploitation

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	159	325	920	67	109	61.47%



Individual Competencies

The following tables show rank by Bracket and overall, based on the following competencies measured in the Regular season games:

- 1. Cryptography
- 2. Enumeration and Exploitation
- 3. Log Analysis
- 4. Network Traffic Analysis
- 5. Open Source Intelligence
- 6. Password Cracking
- 7. Scanning
- 8. Web Application Exploitation
- 9. Wireless Access Exploitation

Cryptography

The top player for Cryptography captured 20 flags out of 20 total flags, scoring 475 points out of 475 total points, and had an accuracy of 100.00%. On average, players captured 9 flags, scored 158 points, and had an accuracy of 72.35%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	127	304	215	13	19	68.42%

Enumeration and Exploitation

The top player for Enumeration and Exploitation captured 6 flags out of 6 total flags, scoring 435 points out of 435 total points, and had an accuracy of 100.00%. On average, players captured 1 flags, scored 32 points, and had an accuracy of 47.97%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	168	381	5	1	1	100.00%







Log Analysis

The top player for Log Analysis captured 23 flags out of 23 total flags, scoring 520 points out of 520 total points, and had an accuracy of 92.00%. On average, players captured 5 flags, scored 65 points, and had an accuracy of 45.29%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	274	597	20	2	6	33.33%

Network Traffic Analysis

The top player for Network Traffic Analysis captured 17 flags out of 17 total flags, scoring 395 points out of 395 total points, and had an accuracy of 77.27%. On average, players captured 3 flags, scored 48 points, and had an accuracy of 39.55%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	232	497	0	0	3	0.00%

Open Source Intelligence

The top player for Open Source Intelligence captured 18 flags out of 18 total flags, scoring 170 points out of 180 total points, and had an accuracy of 100.00%. On average, players captured 15 flags, scored 135 points, and had an accuracy of 67.67%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	265	541	155	17	20	85.00%





Password Cracking

The top player for Password Cracking captured 25 flags out of 25 total flags, scoring 515 points out of 515 total points, and had an accuracy of 100.00%. On average, players captured 9 flags, scored 139 points, and had an accuracy of 87.25%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	87	207	250	16	19	84.21%

Scanning

The top player for Scanning captured 18 flags out of 18 total flags, scoring 255 points out of 255 total points, and had an accuracy of 100.00%. On average, players captured 8 flags, scored 88 points, and had an accuracy of 67.61%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	256	519	55	6	8	75.00%

Web Application Exploitation

The top player for Web Application Exploitation captured 7 flags out of 7 total flags, scoring 485 points out of 485 total points, and had an accuracy of 100.00%. On average, players captured 1 flags, scored 18 points, and had an accuracy of 44.65%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	129	288	15	1	10	10.00%





Wireless Access Exploitation

The top player for Wireless Access Exploitation captured 16 flags out of 16 total flags, scoring 285 points out of 285 total points, and had an accuracy of 100.00%. On average, players captured 4 flags, scored 64 points, and had an accuracy of 63.14%.

Bracket	Bracket Rank	National Rank	Total Score	Total Flag Captures	Total Flag Attempts	Accuracy
Silver	102	226	105	10	22	45.45%



Thank you for your participation in the NCL Spring 2017 Regular Season! We hope you will continue to develop your knowledge and skills and make meaningful contributions as part of the Information Security workforce!

Casey W. O'Brien NCL Commissioner