

1-31-2023

University of Dayton top 9 percent of U.S. schools in national cybersecurity competition

Lucy Waskiewicz

University of Dayton, waskiewicz11@udayton.edu

Follow this and additional works at: https://ecommons.udayton.edu/cas_blog

eCommons Citation

Waskiewicz, Lucy, "University of Dayton top 9 percent of U.S. schools in national cybersecurity competition" (2023). *College of Arts and Sciences Newsroom*. 609.

https://ecommons.udayton.edu/cas_blog/609

This Blog is brought to you for free and open access by the College of Arts and Sciences Administration at eCommons. It has been accepted for inclusion in College of Arts and Sciences Newsroom by an authorized administrator of eCommons. For more information, please contact mschlengen1@udayton.edu, ecommons@udayton.edu.

University of Dayton top 9 percent of U.S. schools in national cybersecurity competition

udayton.edu/blogs/artssciences/2023-stories/23-01-31-cyber-rankings.php



Tuesday January 31, 2023

By Lucy Waskiewicz '24

By cracking website passwords, identifying malicious hackers and searching for hidden data, University of Dayton computer science students finished in the top 9 percent nationally in the National Cyber League's 2022 fall season.

National Cyber League competitions challenge students to complete cybersecurity tasks in individual and team competitions. The league's Cyber Power Rankings list the top 100 schools based on team performance, individual performance and the number of participating students. UD has been ranked in every competition since its first in 2019.

Tianming Zhao, assistant professor in UD's Department of Computer Science, coached the students for the 2022 fall season, in which UD finished 40th out of 470 colleges and universities.

“The purpose of this competition is to bridge the gap between university curriculum and the cybersecurity industry,” Zhao said. “Our ranking not only shows others our students’ confidence and ability to apply practical concepts to real-world situations, but that the University and department itself is strong enough to prepare them to do so.”

Sixteen UD students were among the 7,500 nationally who competed last fall. They trained for almost two months using the league's online “gymnasium,” a virtual training ground to develop, practice and validate cybersecurity knowledge by using realistic simulation environments for real-world experiences.

“During this stage we also host help sessions in which senior students who have participated in the NCL before help new students figure out how to solve challenges,” Zhao said. “It’s become a tradition of mentorship and collaboration among students who are new to the NCL and those who have competed multiple times before.”

The official individual and team competition games took place in early November. The tasks challenged students’ knowledge of open source intelligence, cryptography, password cracking, log analysis, network traffic analysis, forensics, scanning and reconnaissance, web application exploitation, and enumeration and exploitation.

Each category’s tasks were designed to simulate a real-life situation students might encounter in the cybersecurity workforce.

“One task that was interesting was in open source intelligence, where we had to track a group of criminals fleeing to Cincinnati/Northern Kentucky International Airport from Cleveland,” said Sairam Vaibhav Varma Mavuleti, a graduate computer science student from Kakinada, India. “We were given their travel data and were asked to find out where they would stop before reaching the airport.”

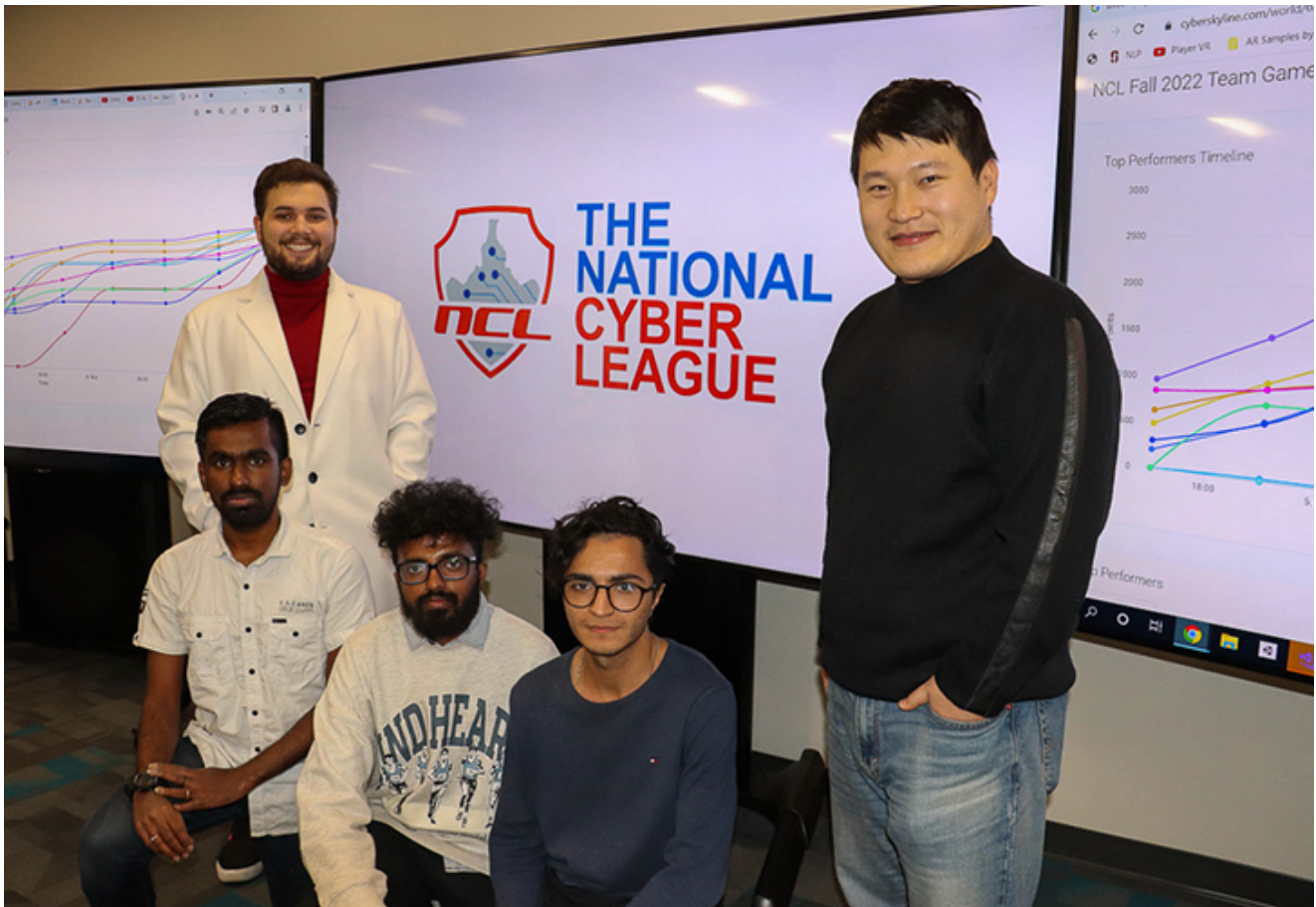


Photo: (left to right) Abdulrahman Shisha, Mukilan Ashokraj Rajapriya, Rahul Theresaraj, Mohammad Ali and Dr. Tianming Zhao.

Official competitions spanned three days, but students sometimes worked for hours at a time completing tasks.

“It could be stressful spending around six hours looking for one exact piece of information,” said Mohommad Ali, a graduate computer engineering student from Kuwait City, Kuwait. “But it’s also the most exciting, because if you’re curious and you like to search for solutions, it’s like you’re out on a hunt for that one little thing that can solve your problem.”

All 16 students competed in individual games, while seven competed together in the team competition. In the team rankings, UD placed 42nd out of 3,926 teams.

Jorge Santos, a senior computer science major from Caguas, Puerto Rico, said his biggest takeaway from the competition was observing how his skills in the classroom translated to real-world applications.

“Participating in the NCL was an amazing opportunity that allowed me to learn and showcase my skills outside of class in a competitive environment,” he said. “I am still learning when it comes to cybersecurity, but opportunities such as NCL allow me to explore and discover the vast world of computer security and how important it is for our day-to-day lives.”

At the conclusion of each NCL season, student participants receive an NCL scouting report, which contains a breakdown of their skill sets and is a resource to provide employers when applying for jobs or internships.

“I always knew that I wanted to have a career in cybersecurity, but never really got real-world first-hand experience until this competition, which solidified my career decision,” said Abdulrahman Shisha, a graduate computer science student from Riyadh, Saudi Arabia. “By competing in the NCL and getting their report card, I have something interesting to put on my resume and know what I need to improve on.”

Zhao is in his first year of teaching at UD and this was his first time as an NCL coach. He said his favorite part of the competition was interacting with the students and supporting their work.

“The best part of the experience for me was helping the students to teach each other and arranging for everyone to gather to discuss problems or practice,” he said. “When I believe that they’re happy and enjoying the process of training and competing, that’s the most enjoyable moment for me.”

Zhao will continue as coach for the NCL 2023 spring season, which began Jan. 30 with the opening of the virtual gymnasium.

To view the full list of Cyber Power Rankings, [visit the NCL website](#).

For more information, visit the [Department of Computer Science website](#).