

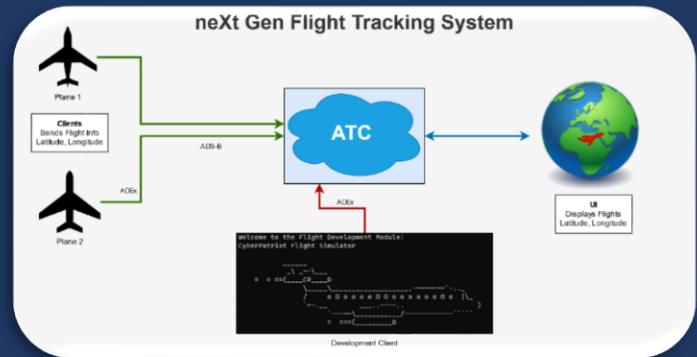


THE CYBERSENTINEL

The official newsletter of CyberPatriot—AFA's National Youth Cyber Education Program

February 2022 | In This Issue

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CyberPatriot XIV Info and Updates

Semifinals Round Recap

Of the 5,254 teams registered in CyberPatriot XIV, 1,048 teams advanced to the Semifinals Round (the top 25% of high school teams and the top 50% of middle school teams).

While this round is notoriously difficult for all tiers and divisions, it was the high school Platinum Tier teams that were really put to the test is what may have been the most challenging competition round in CyberPatriot history.

Two new new challenges – The Boeing Product Security Engineering Challenge and the CyberPatriot Web-Based Challenge – required completion in addition to the usual VM images and Cisco challenges. The Web-Based Challenge tested competitors knowledge in three key areas: MBR Partitions, Entropy, and Password Auditing. The Boeing Challenge presented teams with a flight tracking system on a virtual machine that had a malicious insider.

Official scores and the CyberPatriot XIV National Finalists will be released on Friday, February 4th. 2022

AIR FORCE ASSOCIATION'S

CYBERPATRIOT

THE NATIONAL YOUTH CYBER EDUCATION PROGRAM

NORTHROP GRUMMAN

FOUNDATION

CHALLENGES
ANNOUNCEMENTS
SCORES
CPOC-XIV-0001

Challenges

Title	Start	Due	Reject	Score	Submitted	Remaining
Challenge 1 - MBR Partitions	1/18 19:00	1/24 9:00	1/24 9:00	16/16	True	2 days, 14 hours
Challenge 2 - Entropy	1/18 19:00	1/24 9:00	1/24 9:00	10/29	True	2 days, 14 hours
Challenge 3 - Password Auditing	1/18 19:00	1/24 9:00	1/24 9:00	0/35	False	2 days, 14 hours

National Youth Cyber Defense Competition Alumni Report

Every two years, we conduct an *Alumni Survey* as a way to gauge CyberPatriot's impact on motivating students toward education and careers in STEM. This survey is a very important tool that helps us show potential participants, as well as prospective and current sponsors, the positive impact our program has on STEM education and on the students who have participated.

If you are a past or present competitor in the National Youth Cyber Defense Competition, please check your inbox for the 2022 Alumni Survey. If you did not receive the survey but would like to complete it, please contact info@uscyberpatriot.org. To view the results of the 2020 survey, [click here](#).

AFA CyberCamps



Looking to keep students engaged in cybersecurity over the summer break? Register to host an AFA CyberCamp! Host registration opened on February 1, 2022 and will remain open until May 1, 2022.

AFA CyberCamps emphasize fun, hands-on learning of cybersecurity principles that are relevant and applicable to everyday life. Through camps, students learn the importance of cyber safety and how to protect their personal devices and information from outside threats. An AFA Standard CyberCamp is designed for campers who are new to the world of cybersecurity. The goal at the end of the camp is to have students ready to compete in the CyberPatriot National Youth Cyber Competition. The Standard CyberCamp consists of an introduction to cybersecurity, cyber careers, the National Youth Cyber Defense Competition, Windows Security Policies, auditing, Linux basics, intro to using a CLI, and command line security.



The Advanced CyberCamp takes campers to the next level and is designed for students who have either competed in the National Youth Cyber Competition or attended an AFA Standard CyberCamp. The Advanced CyberCamp curriculum consists of (1) Windows graphical utilities, command line, Sysinternals Suite, (2) Linux Init Systems, advanced command line, processes and scheduled tasks, security policies, PAM and (3) Cisco NetAcad.

On the last day of the AFA CyberCamps, campers are immersed in a mock competition where they work on securing virtual images by finding and fixing vulnerabilities on a Windows 10 VM and Ubuntu 18 VM.

Host organizations can choose to host a camp during any of the available weeks below. Both standard AND advanced camps are offered each week. Please note that for administrative reasons, there are certain weeks in June and July in which we do not offer camps.

* Juneteenth will be observed on June 20, 2022. Camps are still available if camp hosts want to hold a camp this week or a four day camp (Tuesday - Friday).

To learn more about hosting a camp, visit

<https://www.uscyberpatriot.org/afa-cybercamps/host-a-camp>

WEEK	DATE
WEEK 1	June 6-10
WEEK 2	June 13-17
WEEK 3*	June 20-24
WEEK 4	July 11-15
WEEK 5	July 18-22
WEEK 6	July 25-29
WEEK 7	August 1-5

Sponsor Spotlight

[AFA Announces Gannon University's Continued Support as CyberPatriot Cyber Silver Sponsor](#) | Air Force Association
January 18, 2022 (Arlington, Va.)—The Air Force Association's CyberPatriot National Youth Cyber Education program announced today that Gannon University will continue its support of the program for a second consecutive year. "We are thrilled to once again get strong support from Gannon University," said Rachel Zimmerman, CyberPatriot's Senior Director of Business Operations. "The school offers a variety of degrees in computer science and cybersecurity. Over the past year, Gannon has provided financial support, supported local CyberPatriot teams, and hosted AFA CyberCamps. We look forward to continuing this important relationship."



Participant Spotlight

U.S. Representative Tony Gonzales visits Medina Valley JROTC CyberPatriot Team



The Medina Valley High School's CyberPatriot team invited Congressman Tony Gonzalez as a guest speaker to discuss cybersecurity. Congressman Gonzales is well versed with cybersecurity as his career started when he enlisted in the United States Navy as a Cryptologist working with SIGINT for 20 years. The Congressman discussed recent cyber attacks and how they impacted our country. One topic of interest that peaked the cadets interest was when Congressman Gonzales talked about who would be the first responders to a cyber attack. He gave the cadets the scenario if a whole town lost power due to a cyber attack, who would be there to respond. He encouraged the team to set their eyes on being one of those first responders.

You can read the story by the Medina Valley CyberPatriot team in their cybersecurity newsletter [Bits and Bytes](#).

CyberPatriot Program Works With Auto Industry To Create Cyber Security Warriors



Tamara Shoemaker with the Michigan CyberPatriot program and the Midwest CISSE Chapter Center of Excellence reveals innovative contest news in their latest YouTube video. The program aims to secure the Detroit Auto Industry and create new cybersecurity pros in the Michigan Schools.

Watch the full interview on YouTube : [Cyber Patriot Program Works With Auto Industry To Create Cyber Security Warriors](#)

Ashwath and Ananya Karunakaram with CyberGRIP



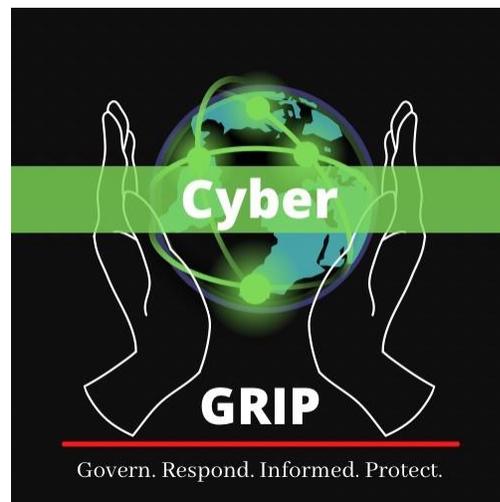
Ashwath Karunakaram and Ananya Karunakaram are high school students who are interested in cybersecurity and computer science. They have been taking part in CyberPatriot for the past few years through which they have been able to improve their knowledge about cybersecurity. While researching more on cybercrimes that occur to citizens, they found out that elder citizens were amongst most of the population that were scammed the most. To remediate this situation, they have recently established a non-profit organization called CyberGRIP, to educate elder citizens about cyber security. The GRIP in 'CyberGRIP' represents the four basic principles of cybersecurity: Govern, Respond, Inform, and Protect. With these four

principles CyberGRIP is dedicated to conducting workshops to achieve their goals with the future vision to do research in defensive mechanisms.

Ashwath and Ananya achieved the Tech Caregiver certification to offer cybersecurity support to those adults who are often vulnerable to cyber threats due to a lack of technological experience and knowledge. They were also able to create training materials combining their knowledge from the CyberPatriot competition and the Tech Caregiver Program. Recently they conducted a webinar workshop on cybersecurity to the Fairfax County Department of Emergency Management and Security Volunteer Corps. The program was very much appreciated for their volunteering effort of giving back to the society to protect elderly citizens from cybercrime. They also have initiated a YouTube channel where they post videos on different cybersecurity concepts to create awareness.

Ashwath and Ananya say that "Due to CyberGRIP, we were able to learn how to educate elderly citizens and gain knowledge through the questions that were asked in workshops". They plan to expand their organization so that more people with a background in cybersecurity can join to educate and protect elderly citizens. Their vision is to spread cybersecurity awareness in the society.

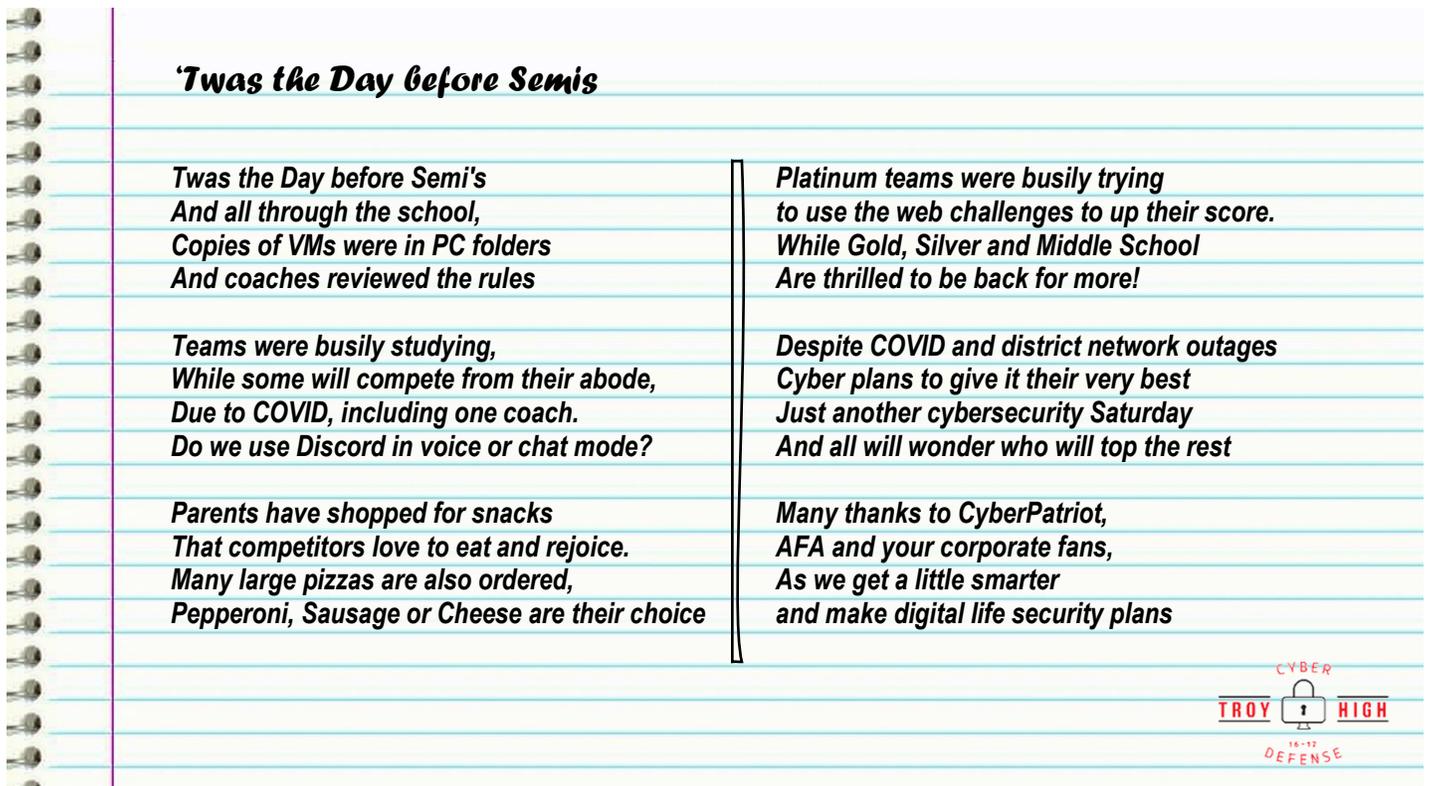
Ashwath and Ananya are strong promoters for CyberPatriot and think that it is important that everyone has knowledge in cybersecurity so that less cybercrimes can occur.



For more information, visit [Cybergrip.org](#) or their [YouTube Channel](#). You may also contact cyber.grip.cs@gmail.com

CyberPatriot competitors write Semifinal Round Poem

The poem was written by Troy Cyber (Fullerton, Calif.) with help from Allison Cheung, Mary Murphy and Benjamin Lac of Coach Allen Stubblefield's 4th period Cyber Defense Fundamentals class.



'Twas the Day before Semis

<i>Twas the Day before Semi's And all through the school, Copies of VMs were in PC folders And coaches reviewed the rules</i>	<i>Platinum teams were busily trying to use the web challenges to up their score. While Gold, Silver and Middle School Are thrilled to be back for more!</i>
<i>Teams were busily studying, While some will compete from their abode, Due to COVID, including one coach. Do we use Discord in voice or chat mode?</i>	<i>Despite COVID and district network outages Cyber plans to give it their very best Just another cybersecurity Saturday And all will wonder who will top the rest</i>
<i>Parents have shopped for snacks That competitors love to eat and rejoice. Many large pizzas are also ordered, Pepperoni, Sausage or Cheese are their choice</i>	<i>Many thanks to CyberPatriot, AFA and your corporate fans, As we get a little smarter and make digital life security plans</i>

TROY HIGH 10-12 CYBER DEFENSE

Meet the CyberPatriot Staff

An Interview with Taylor Crouch | Computer Operations Coordinator



You may remember Taylor Crouch from a previous CyberSentinel issue, when she was CyberPatriot fall intern. Well, we are thrilled to announce that Taylor is now a full-time staff member of the Air Force Association and CyberPatriot's newest Computer Operations Coordinator! She brings great ideas and a new energy to the program.

Q: What made you decide to apply for the Competition Operations Coordinator position?

A: I was excited about the position because I had already had such a positive experience working at CyberPatriot as an intern. I knew that the position would allow me to continue to build on the technical skills I had gained working with the technical team, while also giving me the opportunity to make an impact on the competition.

Q: You are well adapted with computers, what is your education background?

A: I recently graduated from Salisbury University with a B.S. in Information Systems. I complemented coursework in my major with courses in Computer Science related to programming and software development.

Q: What are your strongest computing skillsets?

A: By working with CyberPatriot competition images, one of my strongest skillsets has become proficiency in different operating systems (Windows 10, Ubuntu, Debian, etc.) and virtual machines. Aside from these skills, I am most proficient in programming languages such as Java and C++.

Q: *Can you tell us a bit about yourself? What are your favorite hobbies and pastimes?*

A: I am interested in pursuing a career in cybersecurity after working at CyberPatriot, so I am currently looking into certifications to gain skills in the field. Outside of work, I enjoy spending time with my family and friends, staying active, and doing almost any outdoor activity. I played lacrosse while I was in college, and I still enjoy going to games.

Q: *Do you have any advice for our senior competitors that will be going off to college next year?*

A: Whether you are moving onto a University campus or attending a community college, starting college can be a huge adjustment. It might be best to take your first semester slow so that you can adapt to college life. Keep this in mind when you are enrolling in classes for your first semester, as you might want to start out only enrolled in enough classes to meet the minimum credit requirement. Joining clubs is a great way to make friends, but can also be a great way to explore your interests if you are not sure what you want to major in. Most colleges have several clubs related to STEM or technology if that is what you are interested in.

CyberPatriot & The News

[St. Vrain Valley School District participation in national cybersecurity contest shows burgeoning interest in field](#) |

By Kelsey Hammon, Longmont Times-Call

Zachary Schultz was a student at Altona Middle School when his computer science teacher first sparked Schultz's interest in cybersecurity through a competition called CyberPatriot.

"She just told our class in seventh grade, 'Hey, this is a really cool thing; it's basically teaching you how to protect a computer,'" Schultz said. "You can go to nationals. You can get offered real jobs."

[Cadets take first place in state competition](#) | **From Contributed Reports**

Cadets consisting of a combined team — the "River Rats" — from the Tar River and Pitt Greenville Composite Squadrons from Wilson and Greenville have taken first place in the All Services Gold Tier of the State Round of CyberPatriot XIV. The cadets also made it to the semifinal round of the 14th season of the Air Force Association's National Youth Cyber Defense Competition. They have been working hard on honing their cybersecurity skills and will be competing during the semifinals today and Saturday.

[Conestoga students advance to national CyberPatriot semifinals](#) | **By Brent Hardin**

CONESTOGA – Conestoga students have used their in-depth knowledge of computers to log into an elite level of cybersecurity success.

Six students have advanced to the national semifinals of the National Youth Cyber Defense Competition. Also known as CyberPatriot, the contest challenges youth to find and fix cybersecurity vulnerabilities in virtual operating systems.

Teams that create the safest and most reliable computer systems win each contest.

[South Newton IT students earn awards in state competition](#) | **By Caitlin Able**

KENTLAND - The Information Technology students of South Newton High School competed in the national cybersecurity competition sponsored by the Air Force Association, earning multiple accolades and two state awards.

South Newton's Information Technology class is led by Angie Rhoads, who has previously led teams to championship wins. Rhoads has previously shared her teaching approach, which she said is "to inspire a love for learning which hopefully enables the student to pursue more knowledge."

LOLs & Executables

Windows 10 keyboard shortcuts you'll want to know...

Ctrl +	
A	Select All
X	Cut
C	Copy
V	Paste
B	Bold
U	Underline
I	Italicize
Z	Undo
Y	Redo
P	Print
F	Find
S	Save
N	New
O	Open
W	Close

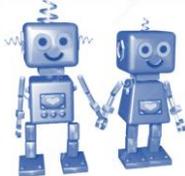
Windows +	
I	Windows Settings
E	File Explorer
A	Action Center
L	Lock screen
V	Clipboard bin
D	Show Desktop
M	Minimize all apps
X	Quick Link Menu
C	Open Cortana
S	Open 'Search'
R	Open 'Run'
TAB	Task View

SCREENSHOT & WINDOW	
PrtScr	Desktop Screenshot to Clipboard
Alt + PrtScr	Window Screenshot in Clipboard
Win + Shift + S	Capture with Snip & Sketch
Win + Ctrl + D	Create Virtual Desktop
Win + Ctrl + F4	Close Active Desktop
+ ←	Snap Window to Left
+ →	Snap Window to Right

DESKTOP	
Ctrl + Alt + Tab	View Open Apps
Alt + Tab	Switch Apps
Alt + Esc	Cycle Open Windows
Ctrl + Shift + Click	Run As Administrator
WEB BROWSER	
Ctrl + Shift + T	Reopen closed tab
THE "LIFE SAVER"	
Ctrl + Alt + Delete	Access Task Manager

Jokes and Puzzles

I may think in binary, but you're the only 1 100 me!



Happy Valentines Day!

Do you know the band 1023 megabytes...?



...T etdgyhyhv o a i eeanhagt

What did the eyewitness tell the cops after a computer robbed a bank?



◊◊◊◊◊X◊◊◊V◊◊◊V◊◊◊

99 little bugs in the code,
99 bugs in the code,
1 bug fixed... compile again,
100 little bugs in the code.



Q1: Q: Do you know the band 1023 megabytes? A2: They have not had a gig yet (Rail Fence Cipher) Q2: What did the eyewitness tell the cops after a computer robbed a bank? A2: It went data way (Templars Cipher)

Fun Facts Sources: <https://thouahitcataloa.com/erin-cossetta/2018/06/computer-puns/>
<https://www.honakiat.com/blog/programming-jokes/>