Medina Valley High School CyberPatriot Team May 2018 Volume 1, Issue 4



### END OF THE Season

We have reached another end to the school year and to the CyberPatriot season. This year has been successful for our team and here are a few reasons: Digital Defense Inc. agreed to a multi-year sponsorship of the team, U.S Representative for Texas 23rd District Will Hurd came to speak to the team and then recognized our team twice for "Leading the Way" in the area of cyber, and the MVISD School Board recognized Team 1 for placing 3rd in Texas in the Open Division. Our team is starting to become recognized in our community and with large cyber organizations, such as CyberTexas.

To our team's graduating seniors, I wish you all the best of luck as you move on to college, or enlist in the military, to start your education and a career in cyber. I encourage all of you to expand your knowledge on all things cyber. Never stop learning. Also, take time away from the keyboard to explore our country and the wonders the world has to hold. As this chapter of your lives closes, another amazing chapter is about to begin.

Finally, a special thank you to Mr. Ben Ramirez. Mr. Ramirez has been a coach and mentor over the past three years. At the end of the school year he is re-entering the cyber work force. He has been instrumental to the success of the Medina Valley CyberPatriot team. We wish you and your family the best of luck.

-Coach Frank Hall



#### Inside this issue

END OF SEASOn..1

Sponsorship.....2

CYBER Talk With Congressman

WILL HURD.....3

Spotlight.....4

SCHOLARSHIP.....4

EVEN+S.....5

Career Day.....5

"WE BELIEVE IT is important to actively nurture Education **PROGRAMS SUCH** as the Medina Valley Cy-BERPatriot CURRICULUM †O Ensure that OUR COMMUNIties are fos-*HERING CYBER* talent

Larry Hurtado,
President and
CEO of
Digital Defense



## DIGITAL DEFENSE SPONSORS MEDINA VALLEY CYBERPATRIOT PROGRAM

Digital Defense, Inc., a security technology and services provider and longtime supporter of the CyberPatriot program is pleased to announce their sponsorship of the Medina Valley CyberPatriot program.



CyberPatriot is the National Youth Cyber Education Program created by the Air Force Association (AFA) to inspire K-12 students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future.

Frederick F. Hall, Medina Valley CyberPatriots coach, shared, "The vision of the Medina Valley CyberPatriots program is to pro-

mote cyber awareness, computer security practices, and cyber ethics. All of these are essential attributes for creating a secure network infrastructure, teaching the students how to detect threats, and how to defend against cyber-attacks in a safe virtual environment."

Digital Defense has been actively engaged with area educational institutions such as Medina Valley and Southwest High School through mentorships and the donation of equipment in support of the school's participation in the national CyberPatriot initiatives. As a sponsor of the upcoming San Antonio Mayor's Cyber Cup Luncheon on Saturday March 24th, the company will be present to cheer on and recognize area CyberPatriot teams.

Larry Hurtado, president & CEO of Digital Defense states, "We believe it is important to actively nurture education programs such as the Medina Valley CyberPatriot curriculum to ensure that our communities are fostering cyber talent that will help to fill the important positions within organizations around the globe that are essential to fighting cybercrime."



#### CYBER CHat WITH THE HONORABLE WILL HURD

Congressman Hurd began his talk to the CyberPatriot team with a brief introduction about himself. He shared with the high school students that he grew up in San Antonio and that he went on to Texas A&M to earn a computer science degree. After graduating from Texas A&M, he went to "The Farm", the Central Intelligence Agency's (CIA) training facility located in Virginia. He continued by talking briefly about his career with the CIA stating that he had been stationed in India, Pakistan, Afghanistan, and New York City. He said, "I was that guy that met his informant at 4 a.m. in the back alley to gather human intelligence." This sentence seemed to grab the attention of the teenagers as they sat forward in their chairs to listen more attentively. He continued his discussion about the importance the role of cybersecurity is playing in today's intelligence gathering and how it is having more of an influence on everything from protecting the country's critical infrastructure to protecting your personal data. He asked if anyone has been reading about how artificial intelligence (A.I.) is being developed and used in a cyber defense role. As part of protecting this critical infrastructure, he went on to explain, the development of A.I. which is able to detect and detour cyber-attacks. He asked the question, "How do you teach a computer with A.I.?" He said, "Imagine you are teaching a computer what a cat is. You upload hundreds of images of cats. You

tell the computer's A.I. this is a cat, this is not a cat. After giving the computer's A.I. this data it can start self-determining the common characteristics of a cat." This principle is used to develop A.I. to search for cybersecurity breaches in network infrastructure. Congressman Hurd gave a detailed explanation that countries like Russia, China, and North Korea are currently developing artificial intelligence technology



that will go toward protecting each country's infrastructure which then could be used to launch cyberattacks against our country and its allies.

Representative Hurd then asked the team members, which mainly consisted of high school juniors and seniors, what they planned to major in at college. The students individually replied with computer engineer, software engineer, and digital computer forensics. He was impressed with their replies and asked if any of them had looked into the National Science Foundation Scholarship for Service and DoD Information Security Program? He explained that once an applicant is accepted into the program, that person would work for the federal government in exchange for assistance with the cost of college. If you are enrolled in the program for three years, you would then work for the federal government for three years. After your commitment was complete, you could choose to continue with your federal service or move to the private sector taking your knowledge and experience to private companies. If you decide to go work in the private sector, you would get paid handsomely and work with cutting edge of technology. However, while federal government cyber services may not be the most advanced, the cyber mission is completely different. He expressed that no matter the path they chose, each will have its own rewards.

"IF YOU DECIDE TO GO WORK IN THE PRIVATE SECTOR, YOU WOULD GET Paid Handsomely and Work With **CUTTING EDGE OF** tECHNOLOGY. HOWEVER, WHILE FEDERAL GOVERN-MENT CYBER SER-VICES May not BE the Most ap-Vanced, the CYBER MISSION IS COMPLETELY DIF-FERENT. HE EX-PRESSED that no Matter the Path THEY CHOSE, Each WILL HAVE ITS OWN REWARDS. "

Congressman Will Hurd



"MS. KELSEY Maine, MVHS Junior Was RE-CENTLY RECOGnized as a 2018 San Antonio Affiliate Honorable Mention at the San Antonio AREA NCWIT (National CENTER FOR Women & in-FORMation TECHNOLOGY) **ASPIRations** AWARD EVENT



## Student Spotlight: Ms. Kelsey Maine

Ms. Kelsey Maine, MVHS junior was recently recognized as a 2018 San Antonio Affiliate Honorable Mention at the San Antonio Area NCWIT (National Center for Women & Information Technology) Aspirations Award Event held at Rackspace on March 29th. The San



Antonio Area Aspirations Community in Computing honored young women from south Texas high-schools for their computing-related achievements and interests. The honorees were selected based on their computing and IT aptitude, leadership ability, academ-

ic history, and plans for postsecondary education. The NCWIT Award for Aspirations in Computing

builds a talent pool for the growing technical workforce and helps academic and corporate organizations celebrate diversity in computing by honoring young women at the high-school level. Ms. Joules Webb, MVHS Computer Science teacher, was the recipient of the 2018 San Antonio Affiliate NCWIT Aspirations in Computing Educator Award

- Honorable Mention. The Aspirations in Computing Educator Award identifies outstanding educators who play a pivotal role in encouraging young women to explore their interest in computing and technology and recognizes these educators for their efforts to promote gender equity in computing.

## National Science Foundation CyberCorps(R) Scholarship for Service (SFS)

During Congressman Will Hurd's visit with the team, he talked about the National Science Foundation's Scholarship for Service and DoD Information Cyber Corps. Here is a description of the program and the link. Scholarship For Service (SFS) is a unique program designed to increase and strengthen the cadre of federal information assurance professionals that protect the government's critical information infrastructure. This program provides scholarships that may fully fund the typical costs incurred by full-time students while attending a participating institution, including tuition and education related fees. Additionally, participants receive stipends of \$22,500 for undergraduate students and \$34,000 for graduate students. The scholarships are funded through grants awarded by the National Science Foundation. Security Programs. Link:

https://www.sfs.opm.gov/

## SUMMER PRACTICE ROUNDS and Practices

There are practice images available now and over the summer. I am working on scheduling summer practice dates, times, and locations. I will post any information on the Facebook pages. Here is a list of events:

#### TRAINING EVENTS

| EVENT              | DATES   | DESCRIPTION  |
|--------------------|---|--|
| Exhibition Round 1 | May 15 - June 14, 2018  | Practice and Recruiting  |
| Exhibition Round 2 | July 17 - August 16, 2018   | Practice and Recruiting  |
| Training Round     | September 6 - October 4, 2018<br>(Tentative*)                         | Training images with answer keys available for new team or refresher training. |
| CP-X Sneak Preview | TBD (Noon- 4PM ET)<br>(Tentative*: Mid-to-late-September, One<br>Day) | Practice/Test New Software<br>One Day - No Alternate Dates                     |
| Practice Round     | October 10 - 22, 2018 (Tentative*)                                    | Not scored. Does not count toward placement.                                   |

<sup>\*</sup> NOTE: TENTATIVE DATES ARE EVENT-DRIVEN WITH SOFTWARE TESTING AND WILL OCCUR CLOSE TO THE DATES THEY ARE SCHEDULED.

The CyberPatriot Time of Events

## MVHS Career Day

MSgt Baker and I were at the Medina Valley Career Day event to discuss careers in cyber. We had a wonderful time talking with all the CyberPatriot team members that stopped by our booth. I know MSgt Baker was amused by the story about how Team Chicken and Waffles got its name.

If anyone has questions about which college to attend for cyber, or how the U.S. Air Force Reserve can help you pay for college, please feel free to contact MSgt Baker or myself. You can reach me via the Facebook pages. Here are MSgt Baker's contact details:

MSgt Dyamie S. Baker 1300 Medina Base Road, Bldg. 321 JBSA Lackland, Medina Annex, Texas, 78236

E-mail: dyamie.baker.1@us.af.mil

Phone: 210.389.8922



"THERE WILL BE SUMMER **PRACTICES** and Prac-TICE COMPEtitions\_ KEEP Watching THE Face-**BOOK Pages** FOR Dates, times, and Locations."



Medina Valley High School

CyberPatriot Team

We are the Medina Valley CyberPatriots!! We are the cyber warriors that relentlessly defend networks from attack. Our cyber hunting skills cannot be matched. We find threats, eliminate them, and strategically launch counter attacks against our cyber enemies. We are CyberPatriots!!

Medina Valley High School

CyberPatriot Team

Facebook Page Address: https://www.facebook.com/ tx20009MVCPTeam/

High School Website Link: http://mvhs.mvisd.com/ clubs\_\_organizations/cyber\_patriots

E-mail: fredrick.f.hall@hotmail.com



# About the MVHS CyberPatriot Team The Vision

The vision of the Medina Valley CyberPatriots program is to promote cyber awareness, computer security practices, and cyber ethics. All of these are essential attributes for creating a secure network infrastructure, teaching the students how to detect threats, and how to defend against cyberattacks in a safe virtual environment.

The skills and knowledge the students will gain from participating in this program will give them an advantage to obtain information technology certifications, scholarships in computer related fields of study, and ultimately provide an opportunity to start a great career in information technology and cyber security.

## **The Mission**

The mission of the Medina Valley CyberPatriot program is the proper instruction and implementation of information technology principals and cyber security practices. All students will be taught how to use various operating systems, interconnecting network devices, and how to secure the entire infrastructure. The students will also be taught how to properly use tools and methodologies to assess and troubleshoot problems that range from inoperable workstations to misconfigured networking equipment. These are the skills that will be necessary to compete in the CyberPatriot competitions and will enable us to advance to each round and ultimately to the national finals.