

TCEA

CONVENTION & EXPOSITION

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C-SPECC Cybersecurity and Cloud Computing Curriculum

*Justin Gomez
Juan Guerrero
Don Morrison
Yolanda Smith*

Northside ISD / UTSA

Center for Security and Privacy Enhanced Cloud Computing



C·SPECC
Center for Security and Privacy
Enhanced Cloud Computing

I·C·S
The Institute for Cyber Security

Who we are:

Yolanda Smith - *Harlan HS*

Justin Gomez - *NISD CTE Dept*

Juan Guerrero - *Business Careers HS*

Donald Morrison - *Warren HS*

Questions?

Submit questions anytime
during the session and we
will answer them!

All users will be anonymous
unless logged into
Google/Gmail!



Questions....

- What are some challenges you have faced when working with people across your district?
- What are some obstacles when adopting new resources for the classroom/campus/district?

C-SPECC Goals

- Pursue excellence in *research, innovation* and *education* in secure cloud computing
- Increase participation of *underrepresented groups* in high tech computing
- Pursue innovative *research-based* educational strategies in this arena

Goals

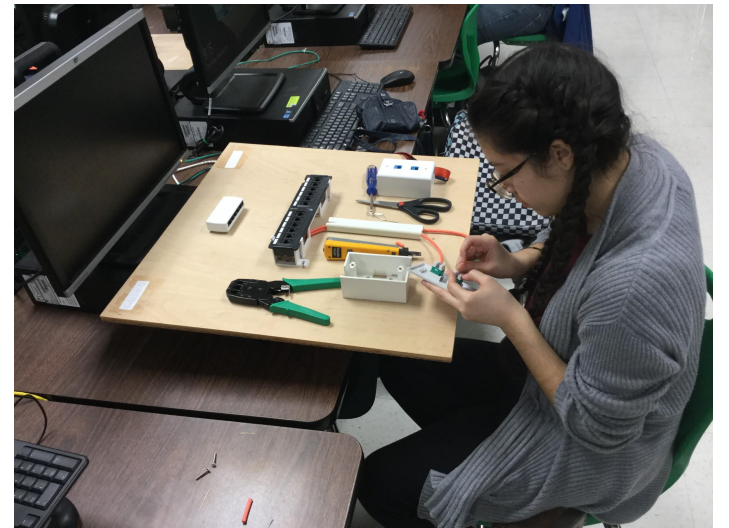
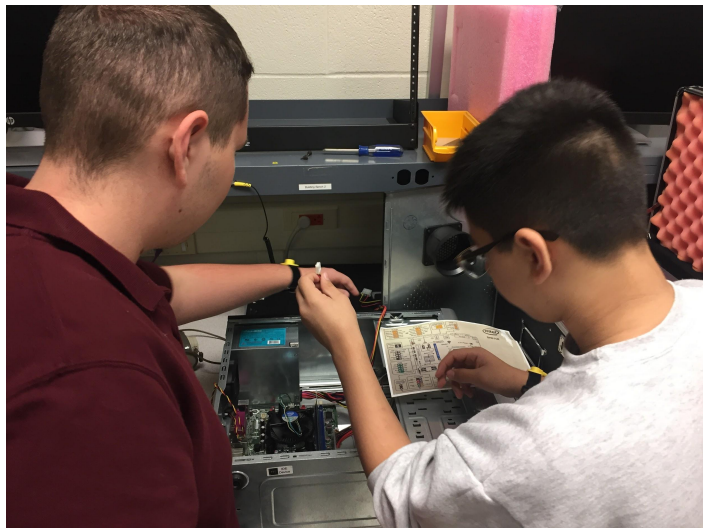
Develop Cyber Security curriculum that is:

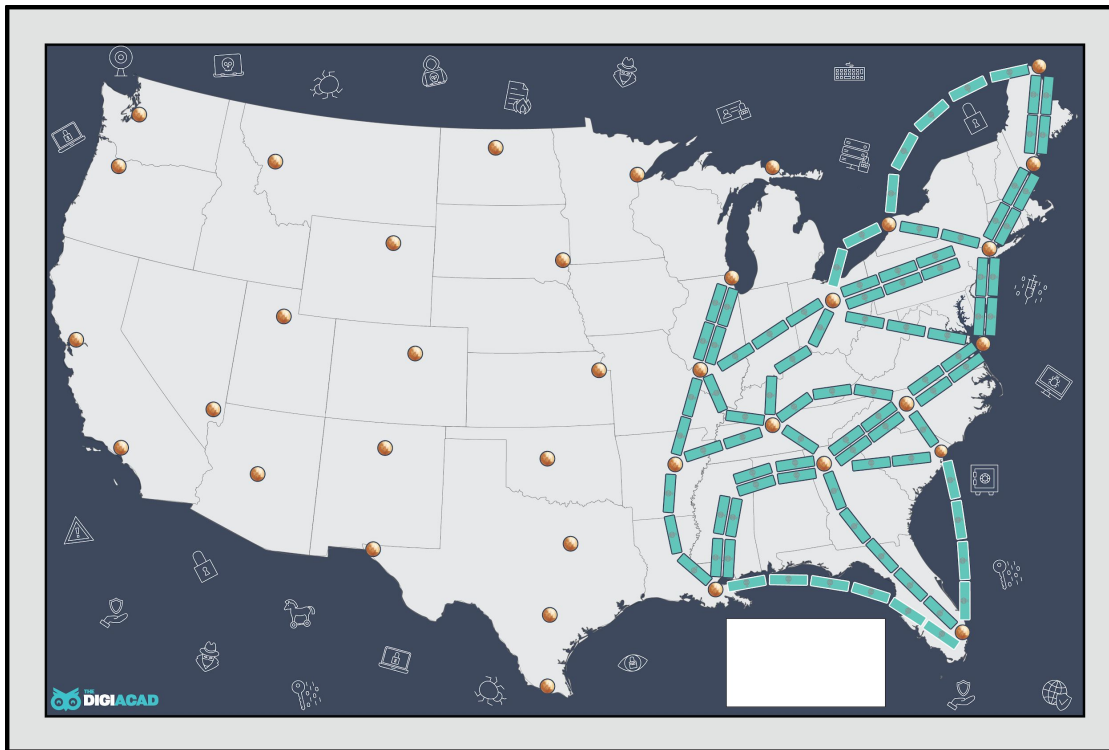
Rigorous

Hands-on

Accessible

Beneficial





THE OSI Model

USE THE TABLE BELOW TO SORT THE DIFFERENT ELEMENTS OF THE OSI MODEL INTO THEIR APPROPRIATE LAYERS.

1. PHYSICAL	2. DATA LINK	3. NETWORK	4. TRANSPORT	5+ UPPER LAYERS
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Student E-Portfolio

- Students create a living document stating personal goals
- Documents student's own individual successes
- E-Portfolio is developed throughout high school and is able to communicate their own growth as an individual
- Supported by the C-SPECC program/track at UTSA

DAVID'S E-PORTFOLIO

[Home](#) [Education/School Projects](#) [About](#)



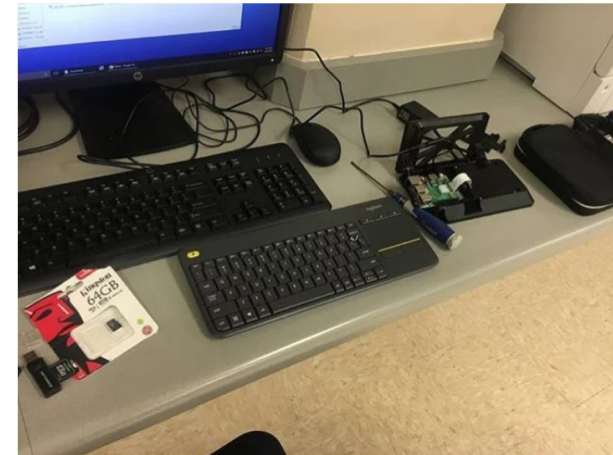
RETROPIE

In this project, we utilized our raspberry pi to create a media player that can run retro games.



BLUETOOTH PROJECT

In this project, we used this Bluetooth device to locate our phones and to test how far our teacher's dog would travel outside our geofence.



MEDIA PLAYER

We used the raspberry pi as a media player to play music, movies, and share photos.



1. What was the longest time period taken to decrypt something?
2. What are the certifications do you recommend?
3. What skills do you think a great cryptologist needs?
4. What are cryptologists doing in the field against data breaches?
5. Is your primary focus cryptology or do you wear different hats?



1. What type of programming languages do I need to learn?
2. Can you describe a typical work day for you and a security engineer in general?
3. What certifications do I need to work straight out of high school?
4. Besides taking computer tech practicum for my network+ and security+ certification, are there any other classes that I should take in the summer to get a head start?
5. How is the team environment like? What kinds of different roles do you cover during a project?
6. Where did you start working at in order to get experience for upper level jobs? What did you do during that job that gave you the needed experience?

Challenges:

- Balancing work and C-SPECC
- Communication
- Meeting requirements for district, state, national
- Classroom-to-industry gap
- Standardization

What's next?

- Expand collaboration
 - Incorporation of more schools
- Creating a senior-level course
- Fine-tune junior-level curriculum

Questions?

For more information
on the C-SPECC
Program / Grant:
cspecc.ics.utsa.edu



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Provide Your Feedback

Remember to evaluate my session!

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