Hack@UCF

Collegiate Cyber Defense Club
HackersofUCF.slack.com | HackUCF.org/discord

Stay informed!

- Join our mailing list
  - https://hackucf.org/mailing-list/
- Join the CECS Slack
  - https://hackersofucf.slack.com/
  - Knights mail required
  - Once registered, chat with us in the #hackucf channel
- Twitter: @HackUCF
- Facebook
  - https://www.facebook.com/HackUCF/

Today's Topics

- Announcements
- Current Events
- Tool Time
- Featured Content
- Closing

Who is Hack@UCF?

Executive officers

- President - Charlton Trezevant
- Vice President - Peyton ~~~~~
- Secretary - James ~~~~~~
- Treasurer - Alex Cote

Operational staff (ops)

- Public relations, content for meetings/workshops, infrastructure

THIS SLIDE SUCKS!

YOU SIT ON A THRONE OF LIES.

Who is Hack@UCF?

Over 50 Majors Represented

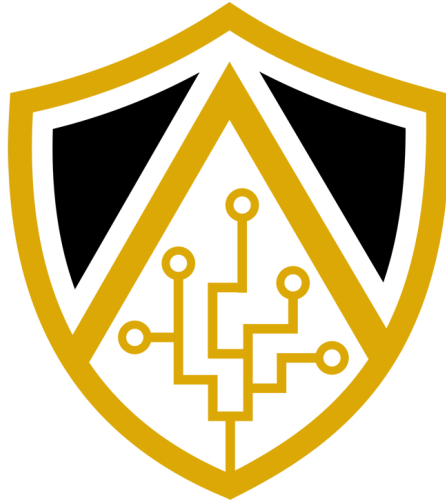*342+ Members each year*

22% Female to Male Ratio

1. Computer Science
2. Information Technology
3. Computer Engineering
4. Electrical Engineering
5. Digital Forensics
6. Mechanical Engineering
7. Mathematics
8. Aerospace Engineering
9. Industrial Engineering
10. Finance
11. Psychology
12. Digital Media
13. Biomedical Sciences
14. Statistics
15. Political Science

And many other unique majors

- Biomedical Sciences
- Theatre
- Undeclared
- International Relations
- Business Management
- Film

Everyone Learns Together!

- Competitions
- Job Opportunities
- Networking
- Social Learning
- Late Night Hacking
- Just having fun hacking stuff!

What is Hack@UCF?

UCF Ranks Among Nation's Top 20 Most Innovative Universities

The university also placed in the top 50 for best undergraduate teaching and undergraduate research, according to *U.S. News & World Report*.

BY ANTHONY MOORE | SEPTEMBER 9, 2019

The Lockheed Martin Cyber Innovation Lab serves as a learning hub, an engineering classroom, and a practice center for UCF's cyberdefense team. (Photo by Nick Leyva '15)
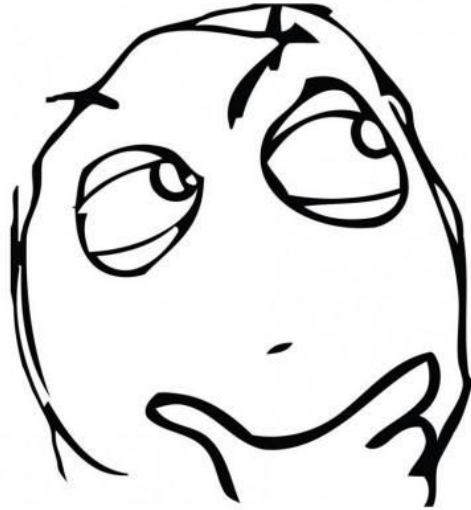
Everything We Know About the Capital One Hacking Case So Far

A new indictment against alleged Capital One hacker Paige Thompson includes a few fresh details about the case.

02 What We Can Learn from the Capital One Hack

AUG 19

On Monday, a former **Amazon** employee was arrested and charged with stealing more than 100 million consumer applications for credit from Capital One. Since then, many have speculated the breach was perhaps the result of a previou[s] "insider" attack in which the accused took advantage of a[...] her former employer. But new information indicates the[...] well understood for years.

ANOTHER ONE

Data breach may affect 50,000 Australian university students using 'Get' app

Students using events app Get, previously known as Qnect, may have had their personal data exposed online

▲ University-based event booking app Get is investigating a potential data breach. Photograph: Rafe Swan/Alamy

09 Secret Service Investigates Breach at U.S. Govt

IT Contractor

The **U.S. Secret Service** is investigating a breach at a Virginia-based government technology contractor that saw access to several of its systems put up for sale in the cybercrime underground, KrebsOnSecurity has learned. The contractor claims the access being auctioned off was to old test systems that do not have direct connections to its government partner networks.

In mid-August, a member of a popular Russian-language cybercrime forum offered to sell access to the internal network of a U.S. government IT contractor that does business with more than 20 federal agencies, including several branches of the military. The seller bragged that he had access to email correspondence and credentials needed to view databases of the client agencies, and set the opening price at six bitcoins (~USD $60,000).

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Clients

ANOTHER ONE

EternalBlue SMBv1 Vuln CVE-2017-0144

NetCAT Vulnerability CVE-2019-11184

EternalBlue SMBv1 Vuln
CVE-2017-0144

NetCAT Vulnerability
CVE-2019-11184

Vulnerabilities By Year

Year	Count
1999	894
2000	1020
2001	1677
2002	2156
2003	1527
2004	2451
2005	4935
2006	6610
2007	6520
2008	5632
2009	5736
2010	4652
2011	4155
2012	5297
2013	5191
2014	7946
2015	6484
2016	6447
2017	14714
2018	16555
2019	10028
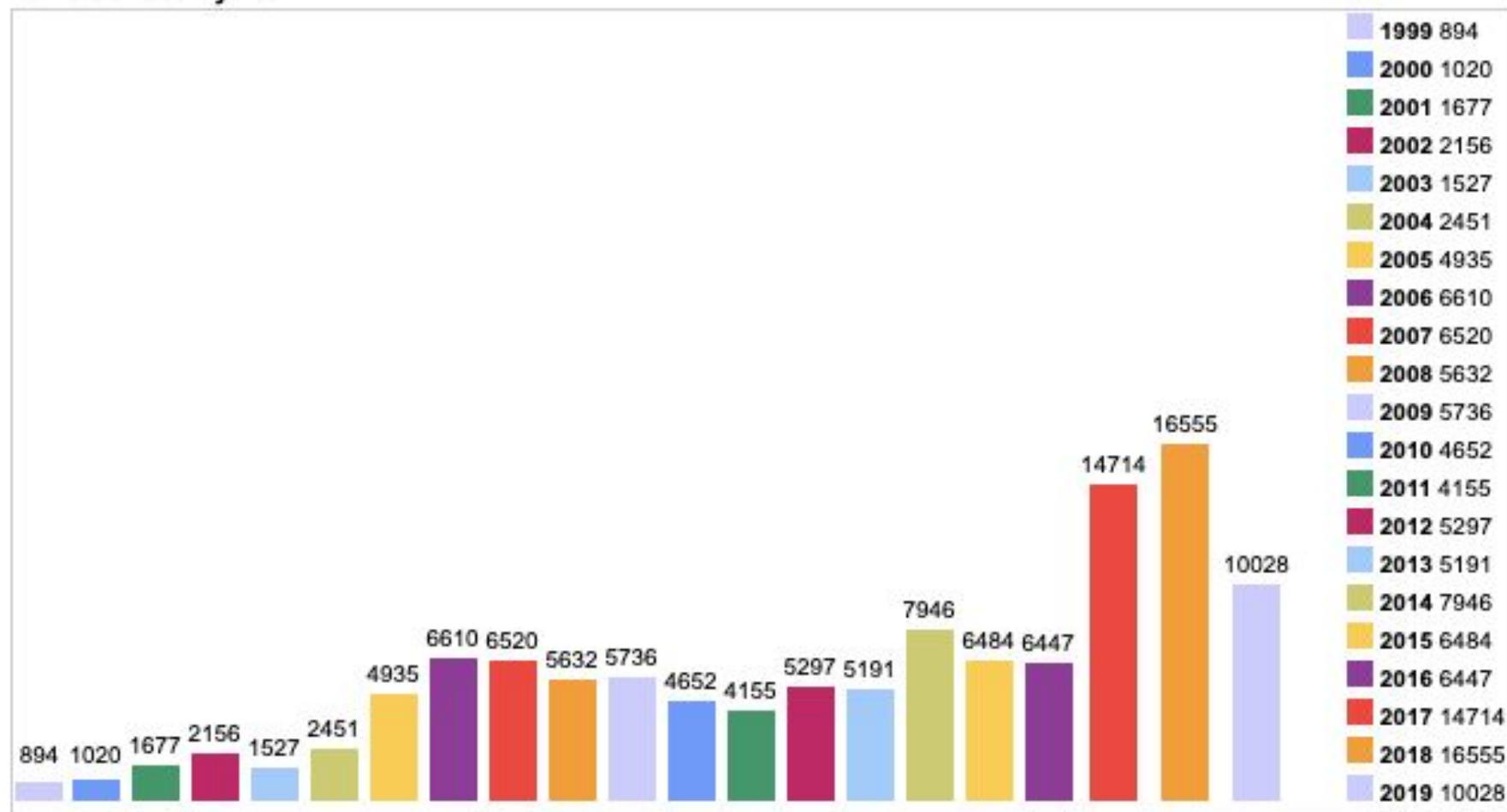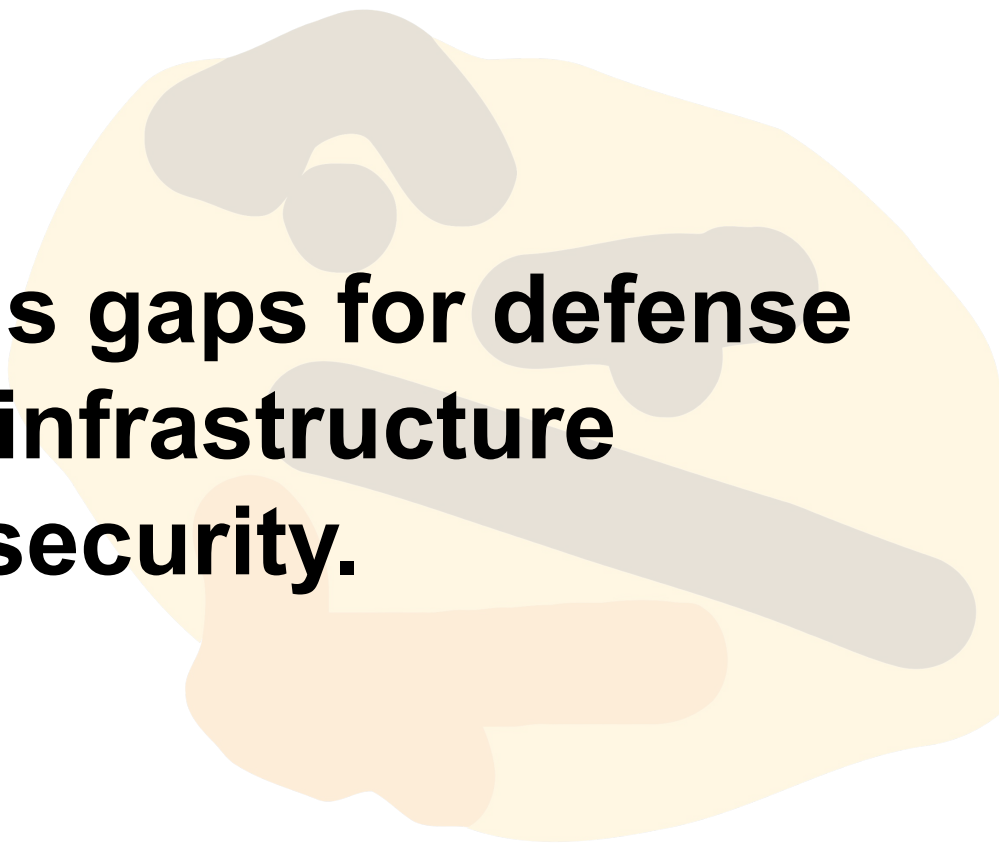
Executive Order on America's Cybersecurity Workforce

ECONOMY & JOBS | Issued on: **May 2, 2019**

★ ★ ★

The Executive Order will:

- Promote the work of cybersecurity professionals within the Government, including by creating a President's Cup Cybersecurity Competition.
- Launch a rotational program where employees can expand their cybersecurity expertise through temporary reassignments.
- Encourage widespread adoption of the NICE Cybersecurity Workforce Framework.
- **Aim to close skills gaps for defense and critical infrastructure cybersecurity.**
- Instruct federal agencies to identify cybersecurity aptitude assessments that they can use to reskill employees with potential in the cybersecurity field.
- Establish the Presidential Cybersecurity Education Awards to recognize and reward excellent educators teaching cybersecurity-related subjects.

Aim to close skills gaps for defense and critical infrastructure cybersecurity.

Here's What's Really Behind The Security Skills Shortage

Mark Aiello Forbes Councils Member
Forbes Technology Council COUNCIL POST | Paid Program
Innovation

ANALYSIS

Is the cybersecurity skills shortage getting worse?

New research indicates that things are not improving for filling the demand for cybersecurity skills. The ramifications are widespread.

The Cybersecurity Talent Gap = an Industry Crisis

Google   security internships

[168,000+ Security Intern jobs in United States - LinkedIn](https://www.linkedin.com)

https://www.linkedin.com › jobs › security-intern-jobs ▾

Today's top 168000+ **Security Intern** jobs in United States. Leverage your professional network, and get hired. New **Security Intern** jobs added daily.

Summer Experiences from Members!

ADDING AN INTERNSHIP TO MY RESUME LIKE

imgflip.com

Membership

$10 per academic year (Fall-Summer)

- Vote in elections
- Free food/drinks during CTFs
- Help the club do great things!

Sign up online at: https://hackucf.org/join/

Cyberlab

- Open to Hack@UCF Members and invited guests
- Jumbotron, Ethernet Ports, and Whiteboards!
- Rules and Regulations apply

Join The Club

- https://hackucf.org/join/
- Need to be enrolled as a student
- Step 1: Membership survey
- Step 2: KnightConnect
- Step 3: Pay dues
  - $10 for the entire academic year (until next August)

slack

UCF Hackers and Builders
hackersofucf.slack.com

Join Slack!

HackersofUCF.slack.com

Both KnightHacks and Hack@UCF

How do we help run the club?

- Hack@UCF Operations!
- Tuesdays at 8pm in the LMCO Cyberlab
- Come help us run the club!
- Come Present!
  - Everyone's gotta start somewhere, and it's really good practice!

Hack@UCF Mentors

- We have alumni that want to mentor you
- Resume reviews, navigating office politics, and more they don't teach in class
- Live calls bi-weekly to answer your questions
- Join **#hackucf_mentors** for more info

Blue Team Workshops

- Interested in competing in blue team competitions such as CCDC and Cyberforce?
- Workshop series on defensive security.
  - Sundays at 2pm
  - Windows, Linux, and Networking.
  - Open to beginners and experienced people
- Join **#blueteam-workshops**
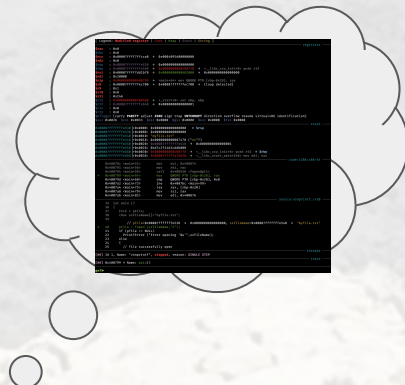
Academic Teams

- We compete in:
  - ➢ CCDC, CPTC, CyberForce, and many many more!
- Tryouts are open to all; rosters are selected by Dr. Nedorost
- Come to an info session!
  - ➢ Sunday, September 15th 1:00 PM in CyberLab
  - ➢ Monday, September 16th 7:00 PM in CyberLab

Social Events

Looking to plan some fun events

- Beach Trips
- Top Golf
- Movies

Join **#social-planning**

Knightsec CTF Team

- We play Capture the Flag (and sometimes win)
- Come to practice
  - Open to all
- Practice with us
  - **hackucf.org/discord**

Discord

Join the Hack@UCF Discord Server!

Check out the Hack@UCF community on Discord - hang out with 112 other members and enjoy free voice and text chat.

What is Capture the Flag?

Challenging ethical hacking competitions that put real real skills into practice!

- Reverse engineering
- Software security
- Web application security
- Cryptography
- Forensics

CTF IS HARD!!!!

me big brain

Could be very rewarding :^)

Type of CTFs

- Attack/Defend

ISTS Logo: https://twitter.com/sparsa_ists

Type of CTFs

- Attack/Defend
- King of The Hill
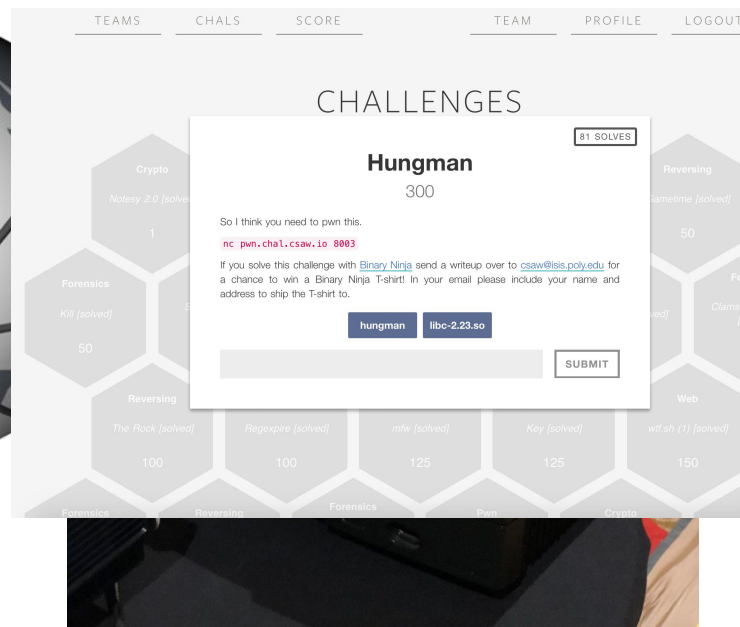
OOO Xbox pic (ty vito): https://hackers.town/@vito/102594528317042090
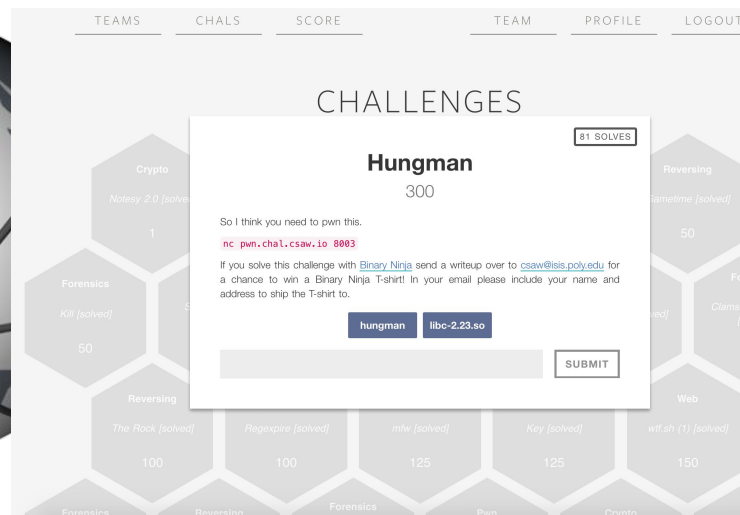ISTS Logo: https://twitter.com/sparsa_ists

Type of CTFs

- Attack/Defend
- King of The Hill
- Jeopardy

Type of CTFs

- Attack/Defend
- King of The Hill
- Jeopardy ← most common
- Some mix types!

CHALLENGES

81 SOLVES

Hungman
300

So I think you need to pwn this.

nc pwn.chal.csaw.io 8003

If you solve this challenge with Binary Ninja send a writeup over to csaw@isis.poly.edu for a chance to win a Binary Ninja T-shirt! In your email please include your name and address to ship the T-shirt to.

hungman   libc-2.23.so

SUBMIT


```
DEFCON CTF finals 2019 (whole game)
─ service milestones                        ─ attack stats
game started on : August 9th, 2019  9.00 AM   rounds played : 241
firstblooded in : 6 days, 17 hrs, 31 min, 2 sec   flags stolen : 6772
firstblood team : HITCONxBFKinesiS             teams pwning : 16
  game ended on : August 11th, 2019  1.00 PM    teams pwned : 16
─ round progress                            ─ patch stats
    last round : 242                         attempted : 591 patching attempts
network cut at : 13:00:00                    functional: 255 patches deployed
─ service progress                          ─ what is this thing?!?
   ooo now : checking it's still up
 patch rule : 000 policy                     A real, live attack/defense CTF game
    pcaps : (service by service)               Olympics of Hacking, since 1996!
 indicator : awesome!
─ total pwns / global score                 ─ brought to you by
      A*0*E : 510 /  564     r3kapig : 131 /  284
        CGC : 106 /  110      saarsec : 292 /  234   Order of the Overflow
HITCONxBFKin :1006 /  772      Samurai : 646 /  398
        hxp :   8 /   67   Sauercloud : 114 /  375      want to play?
 KaisHack GoN :   2 /  281  Seoul+BadAss : 339 /  331      oooverflow.io
  mhackeroni : 656 /  556    Shellphish : 109 /  284
        PPP :1442 /  972   TeaDelivrers : 815 /  589
r00timentary : 499 /  358  TokyoWestrns :  96 /  214
─ every team both pwned and was pwned                    [rtc0: 07:12]
```

2017 CSAW Scoreboard: https://ctftime.org/writeup/7749
Defcon CTF AFL: https://www.oooverflow.io/dc-ctf-2019-finals/whole-game-AFL-2019.png

Demo Time!

- Demo gods plz

CTF Writeups and Challenges   https://hackucf.org/blog/category/wri...   Edit

ctf-writeups   ctf-challenges   hackucf   ucf   ctf   Manage topics

⊙ **38** commits   ⑂ **1** branch   🏷 **0** releases   👥 **4** contributors

Branch: master ▾   New pull request   Create new file   Upload files   Find File   Clone or download ▾

Helithumper Merge pull request #5 from yuungH4x0r/master   ⋯   Latest commit 21fef94 on Apr 15

📁 2016-2017/csaw_quals_2016	Fixing READMEs	10 months ago
📁 2018-2019	Merge pull request #5 from yuungH4x0r/master	5 months ago
📄 CONTRIBUTING.md	Scoreboard Changes	10 months ago
📄 README.md	Added Instructions	10 months ago

📖 README.md   ✏

Hack@UCF CTF Writeups and Challenges
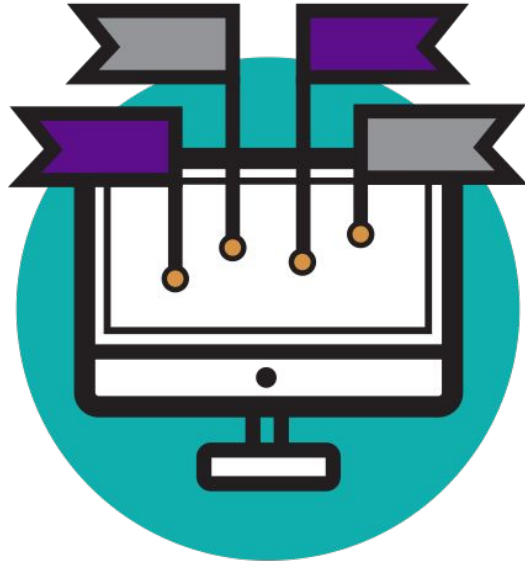
CSAW CTF
2019

Upcoming Events

- UCF Infosec Expo
 - Co-Hosted by UCF Infosec and Hack@UCF
  - October 10th
  - Open to All

The University of Central Florida Information Security Office, in collaboration with Hack@UCF, will host a Cybersecurity Expo on **October 10th,** from 9 a.m. to 4 p.m., on the main UCF campus. Held in the impressive Pegasus Ballroom in the Student Union, the Expo will feature tables hosted by industry groups, federal agencies, UCF departments and local companies. This will be a casual event, offering an informal setting for face-to-face conversations with industry experts. This Cybersecurity Expo will provide attendees with an opportunity to speak with cyber security professionals, understand why information security is so important, and learn about ways to protect their personal information.

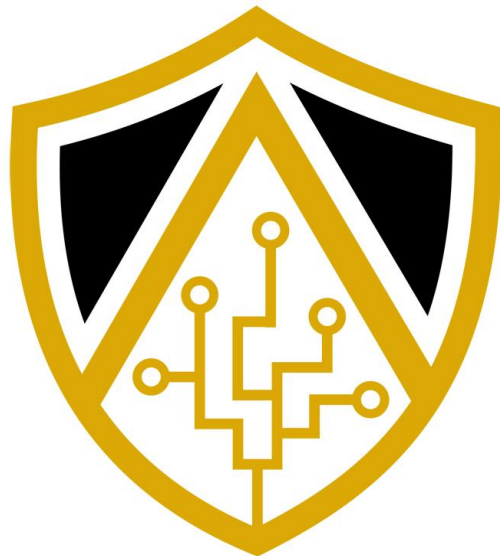HOSTED BY INFOSEC & HACK@UCF

10.10.19

One more thing...
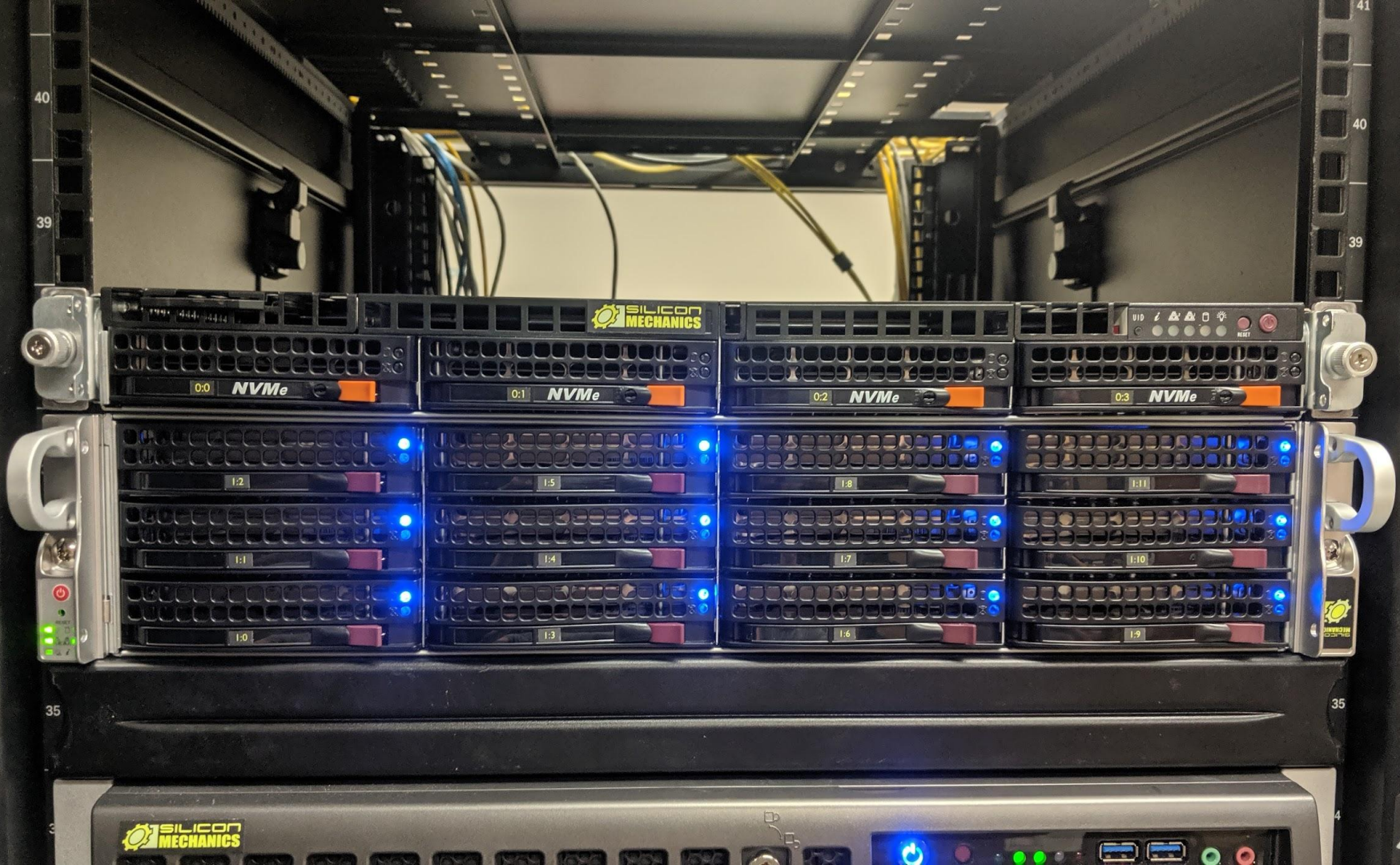
The Cyber part of the Cyberlab

- The Hack@UCF Lab
- 72+ Cores
- 256+ GB of RAM
- And that's only **STAGE 1**
- More news to come soon…
  - And by more, we mean MORE

Thank you!

HackersofUCF.slack.com | HackUCF.org/discord

https://hackucf.org ● https://www.facebook.com/HackUCF