

HackPack

Who am I?



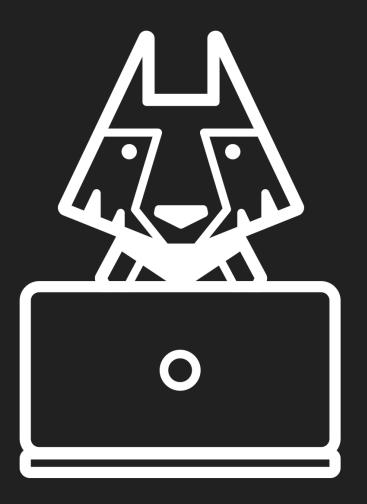






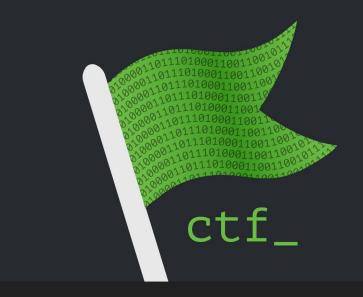
What is HackPack?

- Student group with interest in security
- Learn new security-related skills
- Practice your skills in CTFs
- Have fun!



What's a CTF?

- Capture the Flag
- Security-related competition
- Two formats:
 - Jeopardy
 - Attack/Defense
- Solve security challenges for points!
- Contained environment to exercise your security skills
- Fantastic way to learn about security problems in practice



CTF challenges

- Web
- RE (reverse engineering)
- Pwn
- Forensics/Stego
- Crypto
- Other

DEF CON 26 CTF

- The largest, oldest and most l33t CTF in the world
- OOO team organized it this year (and for the next couple years at least)
- Winners get
 - o 8 DEF CON black badges
 - 8 DEF CON leather jackets
 - Eternal glory
- Quals in May -> 586 teams
- Finals in August -> 24 teams
- DEF CON attracts ~30,000 people every year...



DEF CON 27 CTF

- Quals -> 1200+ teams
- Finals -> 16 teams
- The highest scoring DEF CON CTF of all time on ctftime 96/100

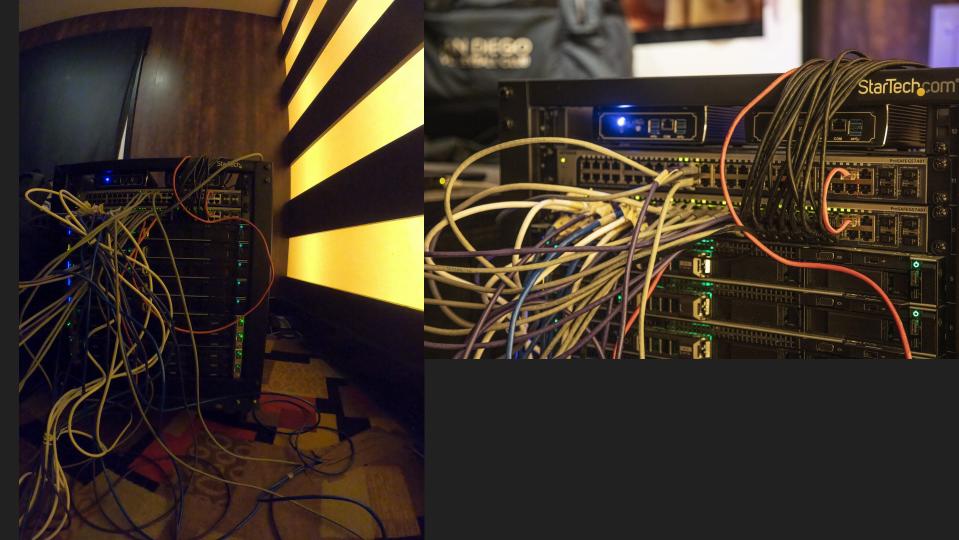
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DEFCON CTF finals 2019 (whole game)
game started on : August 9th, 2019 9.00 AM
firstblooded in : 6 days, 17 hrs, 31 min, 2 sec
firstblood team : HITCONxBFKinesiS
  game ended on : August 11th, 2019 1.00 PM
     last round : 242
                                      attempted: 591 patching attempts
network cut at : 13:00:00
    ooo now : checking it's still up
 patch rule : 000 policy
                                       A real, live attack/defense CTF game
                                        Olympics of Hacking, since 1996!
      pcaps : (service by service)
HITCONxBFKin :1006
                                                           want to play?
                                                           oooverflow.io
                                                 589
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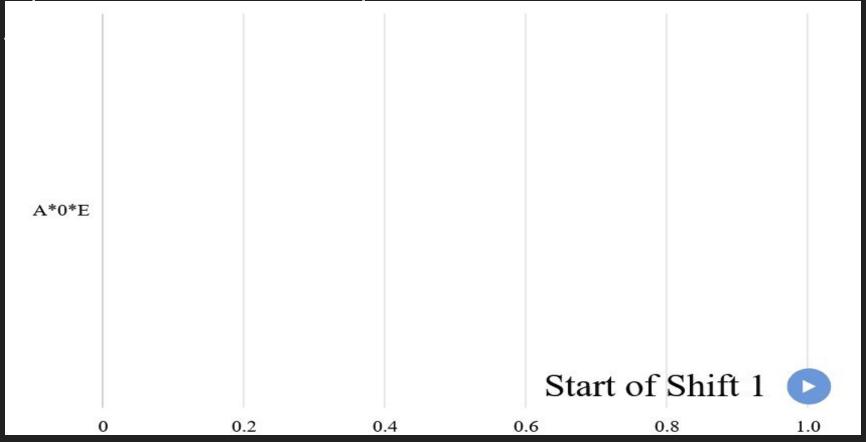




1.	Plaid Parliament of Pwning	973
2.	HITCON BFKinesiS	772
3.	Tea Deliverers	590
4.	A*0*E	564
5.	mhackeroni	556
6.	Samurai	399
7.	Sauercloud	375
8.	r00timentary	359
9.	SeoulPlusBadAss	331
10.	Shellphish (tied)	284
10.	r3kapig (tied)	284
12.	KaisHack GoN	281
13.	saarsec	235
14.	TokyoWesterns	215
15.	CGC	110
16.	hxp	67



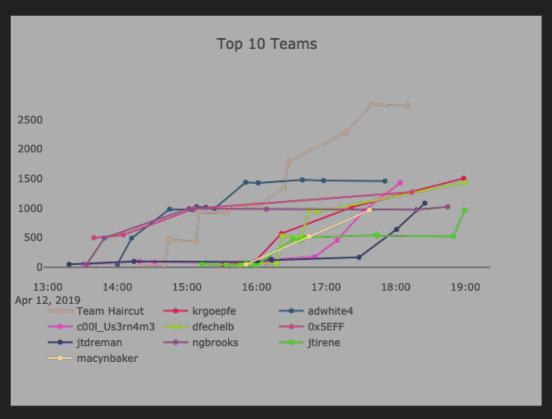
Epic battle for first place



HackPack CTF

- Organized every year in the Spring semester by the core HackPack group
- Part of CSC-405 as homework
- Introductory CTF for students with no security experience
- A chance to get involved in organizing a CTF!

HackPack CTF 2019



Ethics - Avoid going to jail

We are going to learn some offensive techniques that can cause damage

Never use these skills against any target without written permission

- Pretty easy, don't do anything illegal!
- Only try to find vulnerabilities in a system that has a bug bounty program

Bug Bounty Programs

- A number of web sites have started to offer Bug Bounty programs
- They will give you money or fame in exchange for reporting security vulnerabilities to them
- Make sure that they also give you permission, and make sure you understand what is in scope
- Google, Facebook, AT&T, Coinbase, Etsy, Github, Heroku, Microsoft, Paypal,
 - https://bugcrowd.com/list-of-bug-bounty-programs





Required skills

- No security background?
 - o Linux?
 - Operating Systems?
 - Assembly?
 - Mad Python/Programming skillz?
- Willingness to take a deep dive and understand things in depth
- Self-motivated



HackPack format for Fall'20

- One meeting per week (to be decided how to do this remotely)
- Practice: use your new skills/knowledge
 - Play CTFs together pair hacking!
 - Work on challenges from previous CTFs
 - Post-mortems: How did one of us approached a specific challenge and how did others solve it? (write-ups can be a fantastic way to improve your skills and learn new things!)
- Goal of the semester
 - Work together on solving all challenges from picoCTF 2018
 - o Produce at least as many write-ups as UNC CTF team has :)
 - These writeups should be the starting point for new members



Introduction round!

- What's your name
- Previous hacking/coding experience
- What do you expect to learn here?
- Any security-related experiences you want to share?

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