FA2022 Week 00

SIGPwny Info Meeting

SIGPwny Admin Team

Slide Styling Guidelines

- Remove this slide once you have read the guidelines
- Use dashes ("-") for bullet points
- Use straight quotes (""), not smart quotes ("")
- Avoid moving text boxes for titles and headings
  - Unless they are all consistently moved!
- Stick to SIGPwny theme colors in the color picker
- Do not make text too small (font size 20 is the limit)
- Reference Brand Guidelines here:
  - https://docs.google.com/document/d/1SioiiGVKIwm0sn56YOr_ESFk qx1HeAv7JfERbeI_AoM/edit

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sigpwny{your_flag_here}

funny image here

What is SIGPwny?

Why were we yelling at you at Quad Day?

SIG Pwn y

Special

Interest

Group

Popular computer
security term

Like 'own'

So we can have
the cool unicorn
logo

What is SIGPwny?

- Computer Security Club at UIUC
- Largest Special Interest Group in ACM@UIUC

Don't talk to me or my child ever again

Run by Undergraduates

Open to **everyone**

Two Meetings/Week!

Traditional Thursdays

15 Minutes Talking, **45** Minutes Doing

6-7PM Siebel 1404

Seminar Sundays

1+ hours talking, many hours doing

2-3ish Siebel 1404

Teaching Philosophy

Cybersecurity is needed for every aspect of CS: **lots** of fields!

Websites → Web Security

Encrypted Messaging → Cryptography

Video Games → Binary Exploitation, Reverse-Engineering

Teaching Philosophy

SIGPwny's goal is NOT to make you a master in any field…

Master

Beginner

Web Hacking

Reverse Engineering

Binary Exploitation

Cryptography

Infra Security

Physical Security

Policy & Ethics

Teaching Philosophy

… but teach you the basics of every field

Master

Meetings   Meetings

Beginner

Web Hacking   Reverse Engineering   Binary Exploitation   Crypto graphy   Infra Security   Physical Security   Policy & Ethics

Teaching Philosophy

… and provide opportunities for **you** to master your interests

Master

Pwny CTF

Research

Competitions

Presenting

SPRI

Beginner

Web Hacking

Reverse Engineering

Binary Exploitation

Crypto graphy

Infra Security

Physical Security

Policy & Ethics
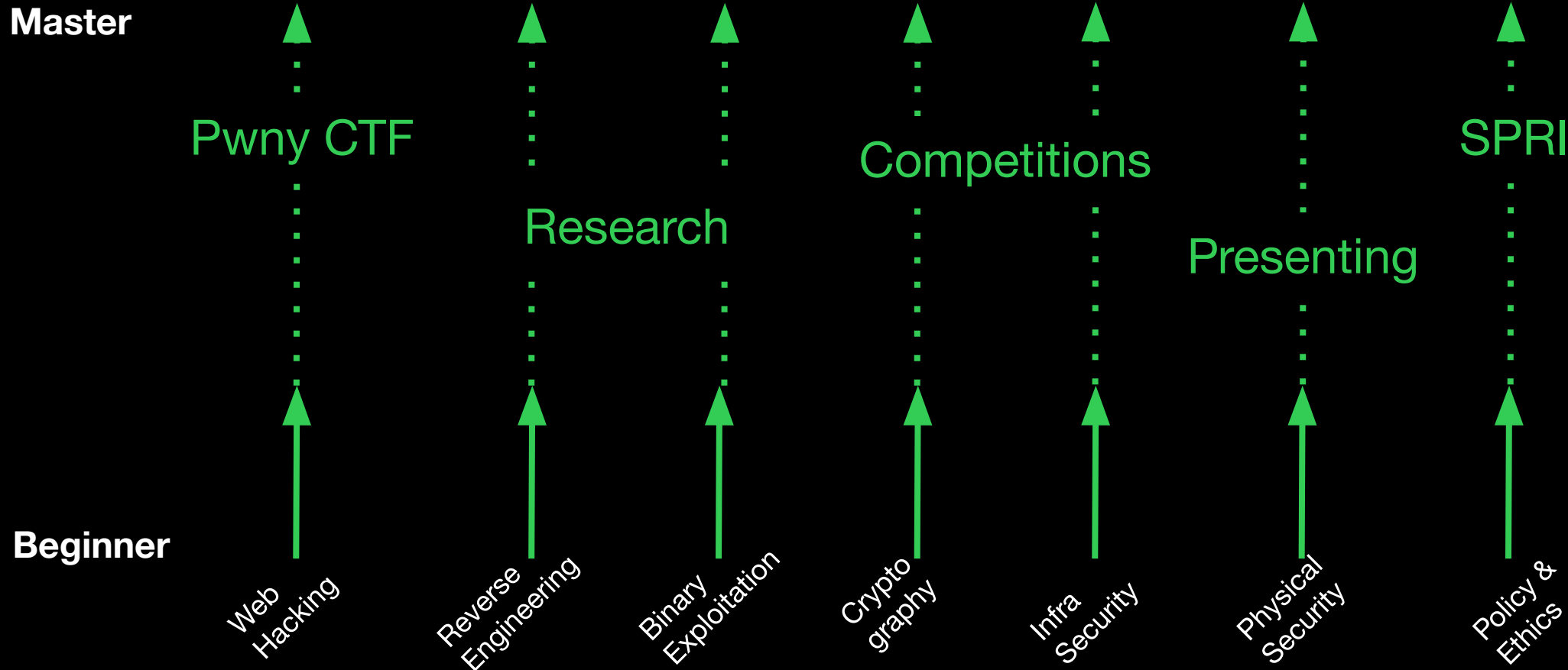
What is Computer Security?

What is this club actually talking about?

Computer Security 101

- Massive, growing industry
    - US has 965,000 unfilled cybersecurity roles[1]
    - 31% job growth rate over next 10 years[1]

- Breaking technological systems (computers)
    - Find problems before malicious actors do

- Protecting technological systems
    - Fixing vulnerabilities before malicious actors use them

[1] https://cybersecurityventures.com/jobs/

whois **SIGPwny**

Admins

Name	Tag	Role	What we did this summer
Nathan	tow_nater	President	SWE @ Meta
Thomas	Sonicninja	President Emeritus	Deep Learning and Network Simulation @ [DATA EXPUNGED]
Anusha	helloca	Admin	AI @ Microsoft
Anakin	Spamakin🎷	Admin	SWE @ CME Group
Emma	lukewarmdaisies	Admin	SWE @ JPMorgan
Minh	WhiteHoodHacker	Admin	Application Security @ Trail of Bits + DEF CON speaker
Hassam	Heasummn	Admin	SWE @ Amazon
Pete	spicypete	Admin	Firmware exploitation @ US GOV

Helpers

Name	Tag	What we did this summer
Husnain	Husnain	UIUCTF Challenge Dev
Kevin	kmh	Static Analysis @ Meta
Michael	Random Object No. 79	UIUCTF Challenge Dev
Noelle	crawfish	?? @ Peak6
Richard	richyliu	Fuzzing development @ GSoC
Sam	Surg	SWE @ Amazon + UIUCTF Challenge Dev

Alum

Name	Tag	What we did this summer
Ankur	arxenix	Security @ Leviathan
Chris	2much4u	Vulnerability Research @ REDLattice
Faisal	Chief	Cyber Risk @ Deloitte
Ian	ian5v	???
Kuilin	kuilin	PhD @ sslab (Georgia Tech)
Ravi	Ravi	PhD @ CSAIL (MIT) + DEF CON Speaker
[REDACTED]	[REDACTED]	[REDACTED] @ NSA

How do I join SIGPwny?

You already have!

sigpwny.com/auth for access to @uiuc role in Discord

What we will and won't do

You will

- Learn how to think with a security/**adversarial mindset**
- Learn how to look for vulnerabilities in systems
- Explore the subcategories of security
- Develop practical security skills
- Find a community of friends and colleagues

You won't

- Hack your friend's facebook accounts!
- Be a 1337 hax0r (praise anonymous /s)
- Break into computers without **explicit permission**
- Learn hacking super quickly or easily

WARNING before We go any further!
(The "Don't Get Arrested" Slide)

- https://www.law.cornell.edu/uscode/text/18/1030

  - Read it!

- CFAA TLDR

  - Computer Fraud and Abuse Act

  - Attacking "protected" computers

  - Anywhere between a fine and **TWENTY** years in jail.

- If you don't have EXPLICIT permission to break into it, **DON'T**

- We are NOT lawyers and CAN'T give you legal advice

Marcus Hutchins, Controversial Hacker who saved the internet, got arrested for past crimes.

Code of Conduct

Code of Conduct

1. Be respectful. Keep your messages civil and don't bully, troll, or harass others.
2. Be inclusive. Racist, sexist, anti-LGBTQ+, and bigoted messages are not tolerated. Promoting people or ideologies that allow these messages are also not accepted.
3. Nothing illegal. Do not perform or discuss illegal activities. Do not doxx or reveal sensitive information belonging to others without their permission.
4. No NSFW or suggestive content. Nudity or gore is not allowed. If you have to ask, don't post it. Swearing is allowed.
5. Don't spam. This includes excessive messages, emojis, images, advertisements, and @mentions.
6. Use common sense. The admins have the final say on misconduct and punishments given. This is a catch-all rule.
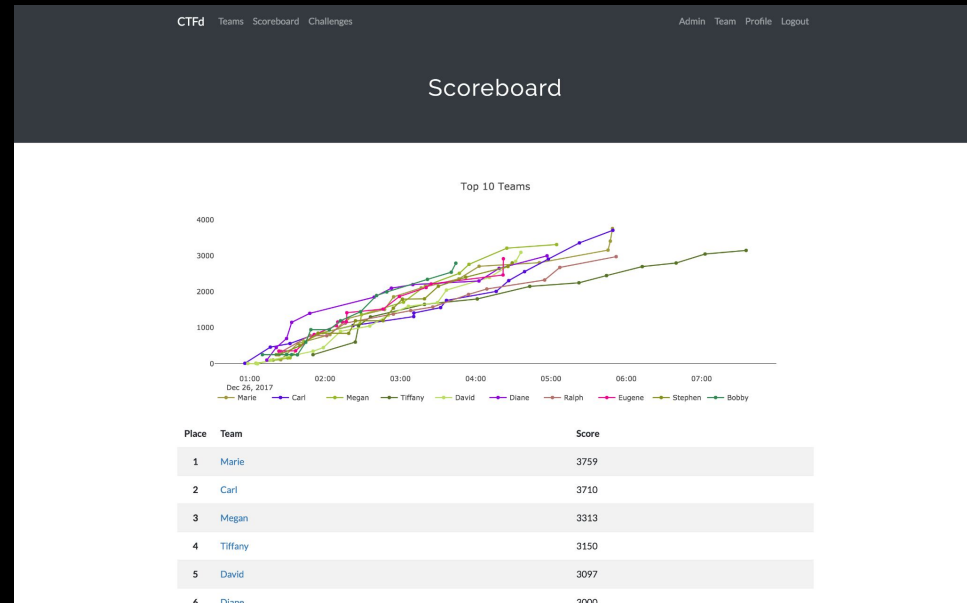
Opportunities

CTF (Capture The Flag)

- The best way to practice your security knowledge!!
- We participate in various CTFs hosted by other teams
- Pwny CTF is our internal, 24/7/365 CTF with a leaderboard to compete with friends!

ctf.sigpwny.com

CTF (Capture The Flag)

- **CSAW 2022 Qualifiers** - September 9th

  Come play with one of the best teams in the world!

- **Fall CTF 2022 -** For people completely new to cybersecurity!
  Free food + free shirt/pin + thousands in prizes!!

Overall rating place: **410** with **49.859** pts in 2018

Country place: **48**

Overall rating place: **300** with **77.673** pts in 2019

Country place: **31**

Overall rating place: **136** with **174.389** pts in 2020

Country place: **19**

Overall rating place: **80** with **243.217** pts in 2021

Country place: **12**

Overall rating place: **60** with **225.640** pts in 2022

Country place: **10**

Research

We work with with NSRG (Network Security Research Group)

- Assist ongoing security research
- OR do an independent research project

Talk to us and watch for future announcements, we will clearly identify research opportunities in the future

Projects

- Pwny CTF and Fall CTF
- UIUCTF
- pwnybot
- Fuzzers
- Network Environment Templates
- Challenge Development Templates (chal.dev)
- Infrastructure for sigpwny.com and SIGPwny servers

UIUCTF 2023

Massive CTF run with 500+ teams, $5K+ prize money.

It's happening, help make it happen.

Stuff that can be done
- Challenge Development
- Theming
- Infrastructure / Web Deb
- Promotion
- Financing

Social Events

Next Meetings

This Sunday: 2022-08-27

- Social event (watch #announcements)
- NO seminar meeting!

Next Thursday: 2022-09-01

- ACM Open House
- NO meeting!

Two Sundays Away: 2022-09-04

- Setup meeting
- Help users get into environments that are ready for security

Questions?

If not lets go get food :)