

Mason Competitive Cyber

Welcome to MasonCC



Mason360

- GMU has a new rule where everyone who goes to any event has to register for the event beforehand on Mason360
 - They are doing this primarily to make it easier to trace the spread of COVID-19
- To register for this meeting, you'll have to go to Mason360 and click on "register"
 - You may have to sign in using your Patriotweb credentials
 - There will be a different link for each meeting
 - If you forgot to register, don't worry! We can register you at the door!



About Our E-Board

- Nihaal Prasad
 - President
- Daniel Getter
 - Vice President
- Andy Smith
 - Competitions Officer
- Tanya Malik
 - Treasurer
- Kaan Turkmen
 - Secretary



Requirements to join MasonCC

- You are a current or past GMU student
- ANY MAJOR
- Both undergraduates and graduate students are welcome
- You are interested in learning about computer security
- Join our slack channel at <https://masoncc.slack.com/signup>
 - Slack is sort of like discord, but more professional
 - We post all of our announcements in slack



Talk Schedule for Spring 2022

- Wednesdays at 6:00pm in JC Meeting Room B
- Check #announce on slack for the announcebot's meeting announcements
- Meetings are always OPTIONAL
- Talks range from beginner to advanced
 - They may be lectures or they may be more hands on
- Anyone can give a talk
 - They don't have to be a part of the club to give a talk
 - Reach out to someone on the e-board if you or someone else would like to schedule a talk
 - We prefer hands-on technical content that is relevant to the field of security



What's a CTF?

- These are cybersecurity competitions where you'll have to complete some challenge in order to win a “flag”
 - The flag is usually just a secret string of characters that you type into a website to earn points
- Jeopardy-style CTFs have different categories, such as web, crypto, exploitation, forensics, etc.
 - This is the most popular CTF format
- Most competitions are online, but a few are in-person
- Some CTFs limit the amount of competitors we can send in a team or are invite-only
 - We may have limited seats for the more competitive or intense competitions



What's a CTF? (Cont.)

- Other styles of competitions exist as well
 - CCDC is a competition where you have to defend a network as it is being attacked by live hackers.
 - HackTheBuilding is a competition where you have to attack a building's computer network.
 - ISTS is a competition where you have to defend your own network while attacking other competitors' networks.
- Job employers LOVE hearing about CTFs
 - In the field of security, it is common for job interviewers to ask, "Tell us about your favorite CTF challenge."



TCTF

MasonCC TCTF

tctf.competitivecyber.club/challenges#Hidden%20in%20Plain%20Sight-66

Apps Mason360 Drive Mail Cloudflare DNS AWS Hacker Typer

MasonCC TCTF Intro Rules Users Searchboard Challenges Admin Panel Notifications Profile Settings

IT Office Recon
25

Basic Crypto

Neo
50

Web

Hidden in Plain Sight
30

Juggling
100

Reading the Network Traffic
100

Trivia

Challenge 30 Solves

Hidden in Plain Sight

30

<http://sekritskwerl.com:8080/>

Please enter the flag in masoncc{} format

Flag Submit



How does MasonCC do competitions?

- Online CTFs
 - Slack
 - Channels for each competition
 - #ctf-watch
 - <https://ctftime.org/event/list/upcoming>
 - Usually over a weekend. Fri-Sun
 - Spend 15min or spend hours
- In-Person Competitions
 - Carpool
 - Occasionally overnight at hotels
 - Slack when we're competing



Key MasonCC Links

- Website:
 - <https://competitivecyber.club/>
- Slack:
 - <https://masoncc.slack.com/signup>
- Training Content
 - <http://go.gmu.edu/ccbeginners>
 - <http://go.gmu.edu/cctraining>
 - <http://tctf.competitivecyber.club>
 - <https://github.com/MasonCompetitiveCyber/ctf-courses> (Work in progress)



“Important” Slack Channels

- #announce
 - Major events and announcements for the club
- #ctf-watch
 - If you want to compete in a ctf, drop it here or look around for upcoming competitions
- #enemyfinder
 - Our most active channel for your unpopular opinions
- #scrubs
 - Ask beginner questions without judgment
- #certs/#jobs
 - Ask for all the career advice you want
- #general/#random
 - General-purpose chat channels
- #hackers
 - Private channel for our most active members



Competing w/ MCC

- We don't have any "formal" process to join most CTFs
 - Just join the slack channel for the CTF and pick who you want on your team!
 - No slack channel? Message someone on the exec board!
- Pay attention to #ctf-watch for announcements
- For especially competitive CTFs with limited seats, we may prefer to select people who have had some experience doing CTFs in the past with MCC.



Resources For Learning

- <https://overthewire.org/wargames/>
- <https://ctflearn.com/>
- <https://tryhackme.com/>
- <https://www.hackthissite.org/>
- <https://dvwa.co.uk/>
- <https://www.hackthebox.eu/>
- <https://www.vulnhub.com/>
- <https://guyinatuxedo.github.io/>
- <https://microcorruption.com/login>
- <https://cs395-binx.github.io/> (shameless plug)
- <https://go.gmu.edu/securityresources>
- <https://ctftime.org/event/list/upcoming>
- Google
- The people in slack!



Upcoming Competitions

- National Cyber League (NCL)
 - Best CTF for beginners!
 - Online, Jeopardy-style CTF
 - Access to practice environment throughout the semester
 - Gym access: Jan 31 - May 27
 - Preseason game: Mar 28 - Apr 4
 - Individual game: Apr 8 - Apr 10
 - Team game (up to 7 per team): Apr 22 - Apr 24
 - We will pay for your vouchers!
 - Message me for a voucher
 - We're only paying for thirty people.
 - First come first serve!
 - Sign up by March 25.
 - This is a time commitment!
 - Join #ncl-spring-2022



Upcoming Competitions (cont.)

- VT Summit
 - Teams of 5 people (only 2 can be grad students)
 - Sometime in the middle of the semester (date not yet determined)
- DawgCTF
 - Online, Jeopardy-style CTF hosted by UMBC
 - Sometime either March or April (date not yet determined)
- RITSEC CTF
 - Online, Jeopardy-style CTF hosted by Rochester Institute of Technology
 - Supposedly April 1-4?
 - Haven't posted much
- UMDCTF
 - In-person jeopardy-style CTF hosted by UMD
 - Dates not yet posted



Upcoming Competitions (Cont.)

- PlaidCTF
 - April 8 - 10
 - Online jeopardy-style CTF hosted by CMU
- Collegiate Cyber Defense Competition (CCDC)
 - Intense defense competition
 - Have to manage a network while it is under attack by live hackers
 - We unfortunately already chose our teams
 - Qualifiers: Feb 5 & 12, 2022
 - Regionals: March 17-19, 2022
 - Nationals: April 21-23, 2022
 - We were able to get third place at nationals last spring!



Upcoming Competitions (Cont.)

- VMI Cyber Cup (a.k.a. Cyberfusion)
 - Feb 25
 - Typical jeopardy-style CTF.
 - Happens at the Virginia Military Institute.
 - We stay there overnight.
 - If we win, we get a giant trophy!
 - Unfortunately, we already chose a team for this competition as well



PatriotCTF!

- GMU is hosting our own virtual CTF!
- April 29 - May 1, starts/end at 5:00pm
- You can compete if interested
 - Possibly obtain prizes!
- We are looking for challenge authors!
 - Message someone on the e-board if interested!
 - Challenge authors will not be allowed to compete for prizes
- <https://pctf.competitivecyber.club/>



CACI Mentorship Program

- CACI wants to try to provide 5 MCC students with a mentor who works in the field
 - The mentor will focus on helping the student acquire career advice (e.g. technical path, certifications, and professional organization)
- Email Cristin Gaskill (cgaskill@caci.com) and Daniel Getter (daniel.getter@gmail.com) by Feb 10 with the following info:
 - Your goals, priorities, and reasons for wanting a mentor
 - Contact information (email and phone number)
- The program will kick off in the first week of March!



RPRC Pentesting Opportunity

- GMU's Rapid Prototyping Research Center (RPRC) wants to setup a program where students will have the opportunity to conduct a penetration test against a U.S. gov client.
- If the program is successful, they may expand the program to allow students to attack other clients as well.
 - The idea is to eventually turn this into either an internship or some kind of training program
- Possibly get paid?
- A new idea (still trying to work out the details)
- Must be a U.S. citizen
 - Does not require clearance
- Message me on slack if you're interested



Hiring From



REDLattice



CACI

EVER VIGILANT

BATTELLE



FLASHPOINT

Booz | Allen | Hamilton

It can be done™

MITRE

galois



FIREEYE™

CLOUDFLARE



CRYPSIS™

Questions?



Sponsors

- We have them
- Heavily vetted (people generally work there)
- Interest comes first, *then* we ask them for money
- Apply for them
 - They're here because they want members



Proud Gold-tier Sponsors



Thank you to these organizations who give us their support!



COMMENCE HACKING



<https://tctf.competitivecyber.club/>

Good categories for beginners:

- **Classic Cryptography**
- **Recon**
- **Trivia**
- **Linux/Scripting**

Shoutout to TCTF 2021 Spring Winner: UnicodeSnowman

Other top players: LordTemplar, 720, U01T, Kage