



Threat Hunting for a **Job**

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# AGENDA



- Why should you trust me?

- Personal Projects

- Inspiration

- Officer story time

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# Why should you trust me?

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An abstract graphic at the bottom of the slide featuring a complex network of interconnected nodes and lines, resembling a molecular structure or a data network, set against a dark background.



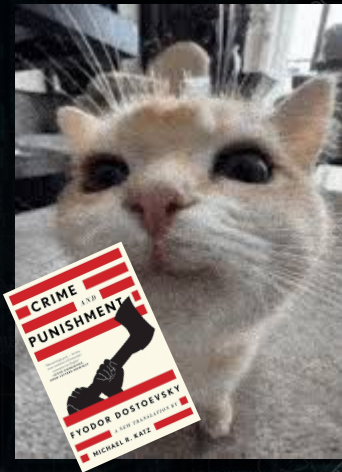
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**Because I said so**

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# Storytime



  
U T D  
**CSG**



## Want to get into Cybersecurity but don't know where to start? **JOIN CSG!**

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The Computer Security Group of UT Dallas is an organization that focuses on promoting education, and building a community of people interested in cyber security. You don't have to be a master hacker to join. All experience levels are welcome!

 **WEDNESDAY, @7PM IN  
ECSS 2.306**

FOLLOW US ON OUR SOCIALS!

 **Instagram**

 **DISCORD**

  
UTDCSG







# Storytime



# Storytime



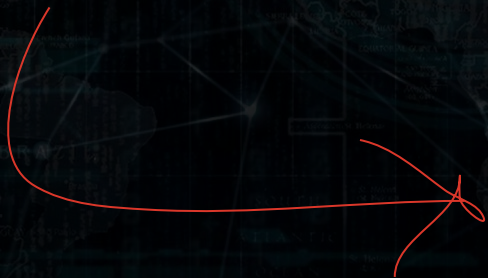
Professional Benchwarmer



Professional Mouse Jiggler



Professional Mountain Climber





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# Personal Projects

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# Personal Projects

- Everybody in your graduate with the need something

Education,  
The University of

## Experiences

**Research Assistant - Strong Cybersecurity - Cybersecurity Research Intern** May 2021 - Present

- Implemented an intrusion detection system (IDS) capable of detecting and alerting on network anomalies
- Conducted a security audit on a web application
- Designed and implemented a secure communication protocol

**The University of Texas at Dallas - Research Assistant** September 2020 - Jan 2021

- Conducted a security audit on a web application and a mobile application using OWASP Top 10
- Developed a secure communication protocol

**Software - Software Intern** May 2020 - Jan 2021

- Implemented a secure communication protocol using a secure communication library
- Collaborated with a software development team to develop a secure communication protocol

**OS Cyber Defense Center - Intern** May 2020 - Aug 2020

- Specialized in the use of a secure communication protocol
- Developed a secure communication protocol

## Certifications / Expected Certifications

- [CompTIA Security+ \(SY0-601\)](#)
- [Red Hat Certified Professional \(RHCP\)](#)

## Selected Projects

- **OSPF Configuration - Project Data Collection**
  - Created a secure communication protocol and the associated data to OSPF packets
  - Used the secure communication protocol to send OSPF packets
- **Infrastructure - Secure Communication Protocol**
  - Designed a secure communication protocol using a secure communication library
  - Developed a secure communication protocol using a secure communication library
- **OSPF / OSPF - Project Data Collection**
  - Created a secure communication protocol and the associated data to OSPF packets
  - Used the secure communication protocol to send OSPF packets
- **Secure Communication Protocol - Project Data Collection**
  - Designed a secure communication protocol using a secure communication library
  - Developed a secure communication protocol using a secure communication library
- **Secure Communication Protocol - Project Data Collection**
  - Designed a secure communication protocol using a secure communication library
  - Developed a secure communication protocol using a secure communication library

## Languages, Skills, Technologies

- C++, C, Python, Java, JavaScript, PHP, Perl, Ruby, Rust, Swift, Kotlin
- Cybersecurity, Network, Firewall, Programming, Cyber Attack and Defense, IDS
- Linux, Git, Docker containers, Nginx, Apache

# Personal Projects

- Not necessarily personal
- Not necessarily projects
- Something you voluntarily go out of your way to do



# Personal Projects





# Personal Projects

**i can act rather  
serious at times**



**I wake up**



Go to class  
Go home

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# You're convinced...now what?

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An abstract graphic at the bottom of the slide featuring a complex network of thin white lines connecting small dots. Some dots are highlighted with a bright blue glow, creating a sense of digital connectivity or data flow.

# Personal Projects

## Personal Website

- Interviewers look at these
- Make a blog!
- Upload writeups



Could get it done in a weekend



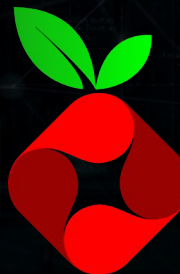
# Personal Projects



## Homelab

Start now and grow with it!

- Learn networks
- Grows with your experience level
- My setup:
  - ThinkCentre 1L PC



 tailscale

# Personal Projects



Easy AND fun!

## Tech Talks

- Good for public speaking
- Forces you to learn good enough to present it

### Talks I've done:

- Homemade router
- Intro to linux for beginners
- Homemade wifi pineapple
- Security architecture
- Malware reverse engineering
- ICS hacking

### Do it at:

- CSG Firetalks
- Dallas Hacker's Association
- Defcon Group 214
- Dallas 2600
- BSides
- ....anywhere you can!



# Personal Projects



## Contribute to Open Source

Still easy! It's very doable!

- Looks awesome on a resume
- Merges your interests with real-world work



- C#
- Reverse Engineering
- Rust
- How to deal with mean comments on my commit messages



# Personal Projects



## CSG Bootcamp

Difficult, will take a few months

- How to scale from development to supporting ~100 users
- How to not get Ddosed

You can and should do it too!

- Make cybersecurity puzzles
- Host them on cloud infrastructure
- Advertise it on local cyber groups and encourage people to learn!



CLOUDFLARE®



NGINX  
PROXY MANAGER



docker

# Personal Projects



## Writing Malware

- Python malware is fun AND approachable
- Hands-on attack vectors
- Do it for research purposes only (seriously)

Difficult-ish, largely since there aren't great online resources



# Personal Projects



## DNP3 Exfiltration

Difficult, took a few months

- Uses DNP3 IP to send covert messages hidden in non-essential bits
- A little better than a character a minute (slow as all hell)



# Personal Projects

oooooo you want to work on a  
project over the winter break



oooooooooooo

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# Honorable mentions

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# Honorable Mentions

## Resume

- SUCKS to do but it gets you through the door
- Certifications are better than I've given them credit, need to pass the AI / HR lookover



# Honorable Mentions

## Networking

- Fun to do and VITAL
- Learn how to talk to people
- People who know people get jobs

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# Officer Story Time

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# Questions?

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