

<https://www.youtube.com/watch?v=2y4CUgyPU80> -supposedly has encryption but looks like it was supposed to be multi part and other parts were never made (might be able to take some parts of it still)

Safeguard (for testing purposes)

Supply file extensions to encrypt

- Import OS to interact allow us to interact with the OS

Grab all files from machine and put them in a list

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Generate key

Grab host name

Send host name and key back to server

Encrypt all files in file list

<https://github.com/ncorbuk/Python-Ransomware> (has youtube link in repo)

<https://www.geeksforgeeks.org/encrypt-and-decrypt-files-using-python/> for just basic encryption/decryption of files if we wanna start from scratch or get a better understanding of Fernet and whatnot

<https://www.youtube.com/watch?v=PLGDsBf9urc&t=57s> (shows how to encrypt someone else's file after getting access into their system, but we'd need to figure out how to exploit their system)

- Could do by brute forcing password, social engineering, phishing, arp spoofing, back door method through fake website.
- Use metasploit? <https://www.metasploit.com/> 30 day free trial (used to scan for system vulnerabilities and create exploits)
 - <https://www.youtube.com/watch?v=TieUDcbk-bg> (metasploit for beginners)

https://www.youtube.com/watch?v=K7y_-JtpZ7I (shows how to exploit someone's computer through using nmap) Man in the middle attack

- Nmap is included in metasploit <https://www.youtube.com/watch?v=T8ktpSHGww> (nmap explained)
- <https://www.youtube.com/watch?v=GkexkyUbUd4> another man in the middle attack example but using arp spoofing
 - Basically tricking the router and target to think we're the gateway. Tricking the router to think the MAC addresses have changed in order to redirect the traffic to us, the attacker.

<https://www.youtube.com/watch?v=UfHgALGjtJs&t=1027s> - uses Visual Studio, code in C#, design GUI and block a ton of other processes on computer

- Looks really complicated though tbh and as a group we probably haven't done a lot of coding in C#, although it probably wouldn't be hard to learn

<https://www.youtube.com/watch?v=ScL07VJJOX4> - uses python, all code in linked github.

- Python tutorial on the ransomware malware. In the first 3mins, I go over the 3 scripts quickly. Afterward, I then showcase the ransomware taking on the ATTACKER/TARGET roles to show you that it works and how it works. I then go over the scripts in more detail. This is very basic and only encrypts a set folder in the project and goes over how you could end up getting infected and how the process works so that you can better protect yourself from it.

GUI

Encryption

Decryption

server