#### SECURITY CONCEPTS

# Malware and Viruses

### What is Malware?

 Malicious software, better known as malware, is software that is harmful to a computer, and often installed without the owner's knowledge





### Types of Malware

- While viruses are the most well known, there are multiple types of malware
- These include adware, spyware, trojans, and worms
- All of these are intended to harm the computer on which they are downloaded

## Virus vs Worm

### Virus:

- Type of Malware that attaches to a file.
- Spreads when the file is ran or shared

#### Worm

- Standalone
  malware that
  can
  self-replicate
  - self-replicate
- Spreads via Networks and Drives



## Malware Incidents

- WannaCry (2017): Worm 230k Infected, \$4-8B
- NotPetya (2017): Wiper (Virus) 3 Companies, >\$10B
- ILOVEYOU (2000): Email Worm >10M, \$5.5-8.7B

# How to Protect Against Malware

- Install antivirus software and keep software updated
- Use strong passwords
- Download software from trusted sources
- Back up all data
- Use multifactor authentication for extra security

