

Cyber security is the practice of safeguarding systems, networks, and data from unauthorized access, attacks, and damage. It involves implementing technologies, processes, and controls to protect against cyber threats, ensuring the CIA Triad.

### IS CYBERSECURITY NEEDED?

- Economic Impact
- Rising Cybercrime
- Regulatory Compliance
- Business Data Breaches
- Protection of Personal Data
- Emerging Technologies
- National Security

### CIA TRIAD

- Confidentiality: Encryption, Authentication.
- Integrity: Hashing, Checksums.
- Availability: Redundancy, DDoS protection.



Phishing

DoS  
attack

Cyber  
Threats

SQL  
injection

Malware

zero trust model

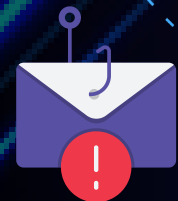
Quantum  
Cryptography

Advancement  
in Cyber  
Security.

APT's

AI&ML in cybersecurity

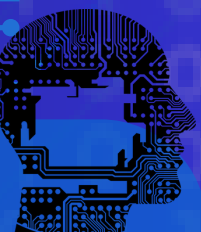
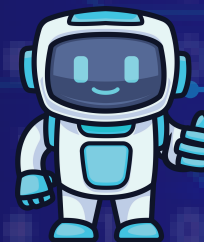
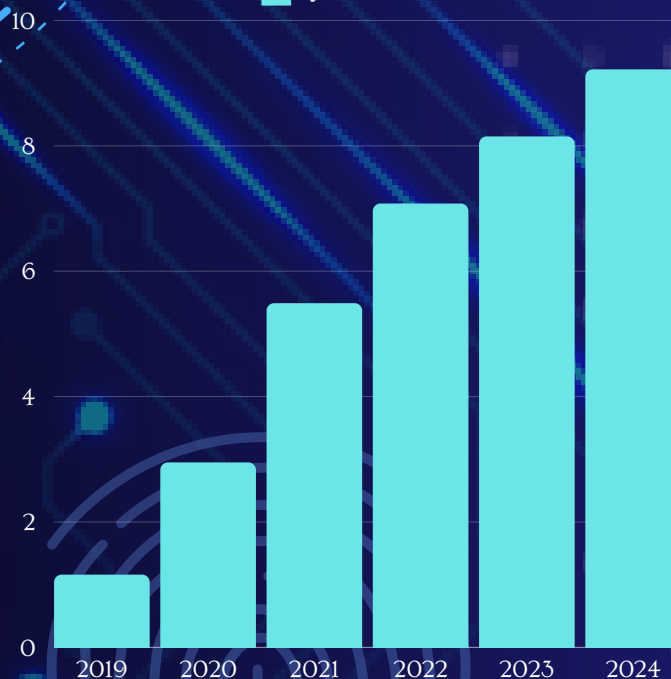
**CYBER  
SECURITY**



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cybercrime rate



### MEASURES

- Firewalls: Block unauthorized access to networks.
- Antivirus Software: Protects against malware and viruses.
- Encryption: Secures data by making it unreadable without key.
- Multi-Factor Authentication: Adds extra layers of login security
- Software Updates: Fix security vulnerabilities regularly.

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