

What is missing in cybersecurity curricula?

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2022 CAE in Cybersecurity Community Symposium
June 9th, Atlanta, Georgia

What is missing in Cybersecurity Curricula?

- Machine Learning
- Game Theory and Stratagems
- Information Theoretic Security

Machine Learning: key for security automation

- Detecting anomalies in network traffic
- Intrusion detection
- Detecting new malware
- Modeling and detecting anomalies in user behavior
- Prioritizing security incidence from multiple sources

Game Theory and Stratagems

- Optimizing allocation of limited defense resources with mathematical game theory

- Stratagems in Attack and defend exercises
 - Deception Techniques in Computer Security
 - Honeynet, honey tokens, decoy files, fake accounts, etc.
 - Chinese 36 Stratagems

Information Theoretic Security

- Basic information theory
- Shannon's perfect secrecy
- Secrecy metrics
- Differential privacy