

Reshaping CyberSecurity With Generative AI Techniques

Part of the Advances in Information Security, Privacy, and Ethics Book Series

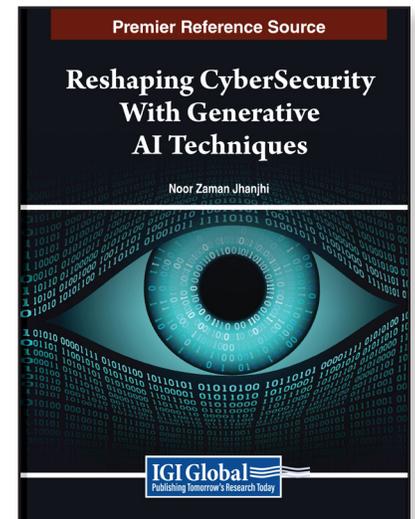
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Description:

The constantly changing digital environment of today makes cybersecurity an ever-increasing concern. With every technological advancement, cyber threats become more sophisticated and easily exploit system vulnerabilities. This unending attack barrage exposes organizations to data breaches, financial losses, and reputational harm. The traditional defense mechanisms, once dependable, now require additional support to keep up with the dynamic nature of modern attacks.

Reshaping CyberSecurity With Generative AI Techniques offers a transformative solution to the pressing cybersecurity dilemma by harnessing the power of cutting-edge generative AI technologies. Bridging the gap between artificial intelligence and cybersecurity presents a paradigm shift in defense strategies, empowering organizations to safeguard their digital assets proactively. Through a comprehensive exploration of generative AI techniques, readers gain invaluable insights into how these technologies can be leveraged to mitigate cyber threats, enhance defense capabilities, and reshape the cybersecurity paradigm.

With practical guidance on implementing generative AI solutions for various cybersecurity challenges, this book equips cybersecurity professionals, researchers, and enthusiasts with the knowledge and tools needed to navigate the complexities of the digital age. From defending against adversarial attacks to revolutionizing incident response, each chapter offers actionable insights supported by real-world case studies and expert analysis.



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Topics Covered:

- Adversarial Attack Defense
- AI-Enhanced Dynamic Defense Strategies
- Applications of Generative AI in Cybersecurity
- Building Resilient Systems
- Deep Learning for Threat Detection and Analysis
- Enhancing Security Through Generative AI-Based Authentication
- Ethical Considerations in Generative AI-Powered Cybersecurity
- Federated Learning for Collaborative Cyber Defense
- Generative Adversarial Networks (GANs) in Cybersecurity
- Generative AI for Threat Hunting and Behavior Analysis
- Generative AI for Threat Intelligence and Information Sharing
- Generative AI in Network Security and Intrusion Detection
- Generative AI-Based Forensics and Incident Response
- Leveraging Generative AI for Secure Communication Protocols
- Privacy-Preserving Techniques

Subject: Media & Communications

Classification: Edited Reference

Readership Level: Advanced-Academic Level
(Research Recommended)

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