"The AI Shield: Defending Against Zero-Day Threats with Intelligent IDS"

Chapter-1. Introduction to AI and Cybersecurity

Chapter-2. Foundations of Intrusion Detection Systems

Chapter-3. Machine Learning Fundamentals for IDS

Chapter-4. Deep Learning Approaches in Threat Detection

Chapter-5. The AI Shield Architecture

Chapter-6. Zero-Day Threat Detection with AI

8.1 Ethical Considerations in AI Security
- 8.1.1 Bias and Fairness in Detection
- 8.1.2 Responsible Data Usage

8.2 Challenges and Limitations
- 8.2.1 Adversarial Attacks on Models
- 8.2.2 Interpretability and Trust

8.3 Future of AI in Cyber Defense
- 8.3.1 Cognitive Security Systems
- 8.3.2 Integration with Blockchain and IoT
- 8.3.3 Quantum Threats and Next-Gen AI