

AI for Cybersecurity

Ruchika Sharma

August 21, 2025

Paper Details

- **Title:** AI for Cybersecurity
- **Author(s):** Sarker et al.
- **Link:** <https://link.springer.com/article/10.1007/s42979-021-00557-0>

1 Summary

Artificial Intelligence (AI) is increasingly being used in cybersecurity to provide intelligent and faster protection against digital threats. It helps in detecting suspicious activities by analyzing large amounts of data and identifying unusual patterns that may indicate malware, phishing, or hacking attempts. AI also enables automated responses, such as blocking harmful traffic or isolating infected systems, which reduces the time taken to react to attacks. By studying past incidents, AI can even predict and prevent future threats. It is also widely used in fraud detection systems for banking and online transactions. However, AI has some limitations such as high dependency on data, chances of false alarms, and the risk of being misused by cybercriminals. Overall, AI strengthens cybersecurity by making defense systems smarter, faster, and more adaptive.