Research on Development of Cybersecurity Software and Threat Intelligence Techniques

Vaishnavi Malwalkar

Institute of Distance and Open Learning, Mumbai, Maharashtra, India

Abstract: *This research project looks on the dynamic interactions that exist between threat intelligence technique strategic integration and cybersecurity software development in today's digital environment. The paper examines the historical development of cybersecurity software, from basic tools to state-of-the-art frameworks, stressing the increasing complexity of cyber threats and examining breakthroughs that have shaped the industry. Through the use of case studies, it examines the critical role that threat intelligence plays in proactive cybersecurity, classifying it into strategic, operational, and tactical aspects. The study tackles the difficulties of effectively combining threat intelligence with software development, offering techniques and best practices backed by actual instances. It also looks at governance and legislative frameworks, investigates the effects of AI and machine learning on cybersecurity, and highlights the value of teamwork in building a robust global cybersecurity ecosystem. The results highlight the importance of taking a comprehensive strategy while navigating the changing cybersecurity landscape and provide insightful information to help professionals, researchers, and policymakers improve cyber resilience.*

Keywords: cybersecurity

REFERENCES

[1]. https://www.crowdstrike.com/cybersecurity-101/endpoint-security/edr-vs-mdr-vs-xdr/

[2]. https://www.crowdstrike.com/cybersecurity-101/endpoint-security/edr-vs-mdr-vs-xdr/

[3]. https://www.cisco.com/c/en_in/products/security/what-is-cybersecurity.html#:~:text=Cybersecurity%20is%20the%20practice%20of,or%20interrupting%20normal%20business%20processes.

[4]. https://www.fortinet.com/solutions/enterprise-midsize-business/security-operations?utm_source=Paid-Search&utm_medium=Google&utm_campaign=SecOps-APAC-IN&utm_content=SL-Sec_Ops_SP-U&utm_term=what%20is%20soc&lsci=701Hr000001lf4AIAQ&UID=ftnt-5740-52086&gad_source=1&gclid=CjwKCAiA75itBhA6EiwAkho9eybhfzac4DIeZa-A1uwK1Iy_JfbWjIgMOyHRqQPKJxIaElJTgcNFDxoCXHEQAvD_BwE

[5]. https://www.checkpoint.com/cyber-hub/threat-prevention/what-is-soc/

[6]. https://www.microsoft.com/en-in/security/business/security-101/what-is-data-loss-prevention-dlp

[7]. www.google.com

[8]. www.youtube.com

[9]. IEEE Security and Privacy Magazine–IEEE CS "SafetyCritical Systems –Next Generation "July/ Aug 2013.

[10]. Razzaq, A.; et al.: Cyber security: threats, reasons, challenges, methodologies and state of the art solutions for industrial applications. In: 2013 IEEE Eleventh International Symposium on Autonomous Decentralised Systems (ISADS). IEEE (2013)