

Investigation and Classification of Cyber Crime using Deep Learning Approach

Tai. S. Pawar¹, Dr. M. D. Rokade²,

PG Student, Department of Computer Engineering¹

Asst. Professor, Department of Computer Engineering²

Sharadchandra Pawar College of Engineering, Dumbrewadi, Otur, Maharashtra, India

Abstract: *An intrusion detection system (IDS) is software that monitors a single or a network of computers for hostile behaviours such as data theft, censorship, or network protocol corruption. The majority of intrusion detection techniques used today is incapable of dealing with the dynamic and complicated nature of cyber-attacks on computer networks. Despite the fact that effective adaptive methods, such as various Deep learning algorithms, can result in higher detection rates, lower false alarm rates, and cheaper computing and communication costs. Data mining can result in frequent pattern mining, classification, clustering, and micro data streams when used correctly. This proposal proposes an enhanced technique for intrusion detection based on data mining and deep learning. The two types of intrusion detection systems are host-based IDS and network-based IDS. Network based IDS is utilised in this proposal to safeguard the computer network and its resources from harmful attacks. Papers representing each approach were located, reviewed, and summarised based on the number of citations or the relevance of a developing method. Well-known cyber data sets are employed in Deep learning and data mining because data is so vital in these approaches.*

Keywords: Cybercrime, cyber-attacks, Deep Learning, Data Mining, and Intrusion Detection Systems

REFERENCES

- [1] Songnian Li, Suzana Dragicevic, Francesc Anton Castro, Monika ester, Stephan Winter, Arzu Coltekin, Christopher Pettit, "Geospatial big data handling theory and methods: A review and research challenges".
- [2] Deepak A Vidhate, Parag Kulkarni, 2019, "Performance comparison of multiagent cooperative reinforcement learning algorithms for dynamic decision making in retail shop application", International Journal of Computational Systems Engineering, Inderscience Publishers (IEL), Volume 5, Issue 3, pp 169-178.
- [3] Yang C, Goodchild M, Huang Q, Nebert D, Raskin R, "Spatial cloud computing: how can the geospatial sciences use and help shape cloud computing?", International Journal of Digital Earth, pp. 305-329, Vol. 4, No. 4, July 2011.
- [4] Deepak A Vidhate, Parag Kulkarni, 2019, "A Framework for Dynamic Decision Making by Multi-agent Cooperative Fault Pair Algorithm (MCFPA) in Retail Shop Application", Information and Communication Technology for Intelligent Systems, Springer, pp 693-703.
- [5] Duffy DQ, Schnase JL, Thompson JH, Freeman SM, Clune TL, "Preliminary Evaluation of Map Reduce for High-Performance Climate Data Analysis", NASA new technology report white paper, 2012.
- [6] Deepak A Vidhate, Parag Kulkarni, 2018, "A Novel Approach by Cooperative Multiagent Fault Pair Learning (CMFPL)", Communications in Computer and Information Science, Springer, Singapore, Volume 905, pp 352-361.
- [7] Gema Bello-Orgaza, Jason J. Jungb, David Camacho, "Social big data: Recent achievements and new challenges", Journal of Information Fusion, Science Direct, pp. 45- 59, Volume 28, March 2016.