

Assessing the Effectiveness of Machine Learning Algorithms for Cyber Threat Intelligence Discovery from the Darknet

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Abstract : Deep learning is a subset of machine learning which incorporates techniques for the construction of artificial neural networks and found to be useful for modeling complex problems with large dataset. Deep learning requires a very high power computational and longer time for training. By aggregating computing power, high performance computer (HPC) has emerged as an approach to resolving advanced problems and performing data-driven research activities. Cyber threat intelligence (CIT) is actionable information or insight an organization or individual uses to understand the threats that have, will, or are currently targeting the organization. Results of review of literature will be presented along with results of experimental study that compares the performance of tree-based and function-base machine learning including deep learning algorithms using secondary dataset collected from darknet.

Keywords : deep-learning, cyber security, cyber threat modeling, tree-based machine learning, function-based machine learning, data science

Conference Title : ICDSTA 2022 : International Conference on Data Science Techniques and Applications

Conference Location : Dubai, United Arab Emirates

Conference Dates : June 27-28, 2022