## Deep Learning Based Solution and Artificial Intelligence to Enhance

## Cyber Security

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**Abstract**

Human cognitive processes are replicated by machines, in particular computer systems, and are known as artificial intelligence. An example of Artificial Intelligence applications includes expert-systems,language processing, voice recognition and machine learning. Artificial intelligence and cybersecurity have a wide variety of interdisciplinarities. The latest artificial intelligence breakthroughs have led to huge growth for cyber advocates and criminals. Cybersecurity experts enhance the safety of AI in the cyber environment via idea development. Cybercrimes used to launch cyber-attacks using Petri net formalizations, but today they employ sophisticated techniques, such as deep learning and machine learning, as technology progresses. The emphasis of this research is on AI and cyber safety as well as AI applications in many fields. First, the objective is to integrate AI with cyber security, ensuring that it can combat many attacks and not let a single attack successfully penetrate the security measures of systems. Then a thorough knowledge is described, along with programs such as the profound faith network, recurrent neural networks, and convolutionary neural networks, as one of the methods of defending against cyber assaults. Finally, it has been proven that AI is not limited to cyber security and is utilized in a range of industries, such as education, robotics, automation, and many more.

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