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Application of artificial intelligence model in cybersecurity measures

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Artificial intelligence (AI) model is a program designed to manage set of data to recognize certain patterns (or make certain decisions) without "further human intervention". The author of this research argues that AI in cybersecurity implies application of AI technologies to enhance protection of digital systems from cyber threats. The objective of this paper is to present discussion on (viable) application of AI model for cybersecurity measures in all regions and continents of the globe. The author has used secondary data (largely 'qualitative'), and method of data analysis is 'descriptive'. Analysis of data in this work indicates that in order to prevent cyber threats, it is of paramount importance to analyse all the data and detect any such risks. It is in this context that significance of AI comes in. AI model simplifies this tiresome process of (1) "data analysis", (2) "data screening", and (3) "detecting any risks". In today's world situation, AI has revolutionized the way information technology (IT) security experts think about cybersecurity. Further, (newly-invented) AI-induced cybersecurity tools have potential to result in "better data protection against cyber threats". Furthermore, "AI-linked cybersecurity model" can (in real time) monitor, analyse, and respond to cyber threats. It is pertinent to note that AI in cybersecurity, with minimal human intervention, integrates AI technologies (e. g., "machine learning") into security frameworks. These technologies, in turn, enable cybersecurity systems to (1) "analyse vast amounts of data", (2) "recognize patterns", and (3) "adapt to new and evolving threats". Another important consideration is that AI model empowers organizations to enhance cybersecurity and reduce likelihood of breaches. This paper briefly concludes that with everything turning digital, cybersecurity threats have been growing each day. AI model utilizes (more efficiently) machine learning and other AI techniques with the aim of detecting, preventing, and responding to cyber-attacks more effectively.

Biography

Santosh Kumar Mishra is a distinguished academic and researcher at S.N.D.T. Women's University, India. With a focus on emerging technologies, Mishra has contributed extensively to studies on artificial intelligence and its applications across various domains, including cybersecurity. His work highlights innovative approaches to integrating AI for enhancing digital security and mitigating cyber threats worldwide.