Summary

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Providing an extensive coverage of machine learning principles, algorithms and practices for cyberspace and cybersecurity, this book not only focuses on latest trends and technologies but also explores the fundamental cornerstones of any cyber security strategy. It presents some of the cutting-edge methods for the detection of advanced attacks and comprises of detailed and explanatory machine learning solutions to the problem of detection. The works catering to a wide range starting from basic fundamentals in machine learning to breakthrough research problems are covered. Some of the topics include machine learning for security and privacy across a varied set of domains like intrusion detection systems, cloud computing, wireless sensor networks, smart grid, visual analytics, e-services, data mining, biometric, social applications and networks, network profiling, privacy-preserving data mining, smart grid, critical infrastructure, robotic systems, bluetooth and wifi security etc.

With the rapid development of knowledge discovery techniques, data mining and machine learning now plays a significant role in the field of cybersecurity. A large number of conferences, seminars, journals and workshops have focused on these areas but there has not been any consolidated resource compiling all the previous, current and future works in this area of research. This book caters to this need. This integrative resource will help the global researchers in identifying exciting areas where machine learning techniques can be used. Numerous illustrations provide the readers a lucid visualisation of the working of complex machine learning techniques which helps in developing a crystal clear understanding of the contemporary cyber security problems.