A Study of Evolving Cloud Computing Data Security: A Machine Learning Perspective

Authors : Shinoy Vengaramkode Bhaskaran

Abstract : The advancement of cloud computing led to a variety of security issues for both consumers and industries. Whereas machine learning (ML) is one approach to securing Cloud-based systems. Various methods have been employed to prevent or detect attacks and security vulnerabilities on the Cloud using ML techniques. In this paper, we present an ML perspective on the methodologies and techniques of cloud security. Initially, an investigative study on cloud computing is conducted with a primary emphasis on the gaps with two research questions that are impeding the adoption of cloud technology, as well as the challenges associated with threat solutions. Next, some ideas are generated based on machine learning methods to mitigate certain types of attacks that are frequently discussed through the application of ML techniques. Finally, we review different machine learning algorithms and their adoption in cloud computing.

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