Patent Search

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Abstract:

The invention presents a pioneering approach to cybersecurity, harnessing advanced artificial intelligence algorithms and adaptive learning mechanisms to proactively identify, analyze, and mitigate cyber threats in real-time. By continuously monitoring network activity and system data, the framework dynamically adapts to evolving threats, enhancing organizations' resilience against malicious activities. Through a combination of anomaly detection, behavioral analysis, and collaborative threat intelligence sharing, the framework offers a comprehensive solution for safeguarding critical assets and mitigating cybersecurity risks in today's rapidly evolving digital landscape.

Complete Specification

Description:FIELD OF THE INVENTION

The present invention pertains to the field of cybersecurity and computer network security. Specifically, it relates to systems and methods for enhancing cybersecurity through the integration of artificial intelligence-driven threat detection and mitigation techniques. The invention addresses the challenges associated with evolving cyber threats and aims to provide a proactive and adaptive approach to safeguarding digital assets, networks, and systems against malicious activities.

BACKGROUND OF THE INVENTION

The following description of related art is intended to provide background information pertaining to the field of the disclosure. This section may include certain aspects of the art that may be related to various features of the present disclosure. However, it should be appreciated that this section be used only to enhance the understanding of the reader with respect to the present disclosure, and not as admissions of prior art.

In today's digital landscape, organizations face increasingly sophisticated cyber threats that can result in significant financial losses, reputational damage, and data breaches. Traditional cybersecurity measures often rely on predefined rules and signatures, which may be insufficient to detect novel and advanced threats. Moreover, the sheer volume and complexity of network data make manual analysis and response impractical.

To address these challenges, there has been a growing interest in leveraging artificial intelligence (AI) and machine learning (ML) techniques for cybersecurity. AI-driven approaches have the potential to adapt and evolve alongside emerging threats, enabling more proactive and effective threat detection and mitigation

View Application Status