ABSTRACT

SYNTHETIC RECONBOT MECHANISM USING ADAPTIVE LEARNING

The Synthetic Reconbot Mechanism implementing using Adaptive Learning is disclosed as an AI-driven cybersecurity solution that advances threat intelligence and digital forensics by integrating real-time data analysis, machine learning, and natural language processing to detect and mitigate security risks. The system uniquely combines 11 distinct functionalities into a single application, uniting modules such as CyberSentry AI for fetching Cyber-security related commands, Infosight AI for generating text and image simultaneously, and Tracklyst for tracing digital footprints, among others, thereby achieving an unprecedented level of integration compared to existing solutions that address only individual cybersecurity aspects. Implemented using a Flask-based website framework with an HTML frontend and Python backend, and employing Google Gemini AI for contextual analysis, the mechanism enables seamless integration with current security infrastructures and enhanced user engagement. Its modular design ensures scalability and adaptability to evolving cybersecurity challenges, while the automation of security processes significantly reduces response times and minimizes manual intervention.