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(57) Abstract :
The invention discloses an AI-powered framework for detecting cybersecurity policy violations. The framework integrates a data ingestion layer (101), preprocessing unit (102), anomaly detection engine (103), policy compliance analyzer (104), explainable AI module (105), and violation reporting interface (106). It analyzes logs, user behavior, and network traffic in real time to identify non-compliant activities. By incorporating adaptive machine learning and explainable AI, the invention reduces false positives, enhances transparency, and ensures regulatory compliance, providing organizations with a scalable and reliable cybersecurity policy enforcement solution.

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