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(57) Abstract :

The invention discloses an automated AI system for detecting malicious software code through integrated modules, including a data ingestion module (101), preprocessing engine (102), static analysis unit (103), dynamic analysis unit (104), ensemble detection engine (105), explainable AI module (106), response management unit (107), and central security dashboard (108). By combining static code analysis with behavioral monitoring, the system ensures robust detection of zero-day, obfuscated, and polymorphic malware. The invention enhances cybersecurity by providing accurate, scalable, and explainable defenses against evolving malicious threats.

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