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(57) Abstract :

The present invention discloses an AI-Based Code Repair and Optimization Engine (100) comprising a Real-Time Code Monitoring Module (101), a Deep Learning-Based Code Analysis Engine (102), an Error Detection and Repair Module (103), a Code Optimization Module (104), a Developer Feedback Learning Module (105), a Cross-Language Compatibility Layer (106), a Security and Compliance Checker (107), and an API Integration Interface (108). The system autonomously detects, repairs, optimizes, and secures code during development, enhancing productivity, code quality, and adaptability across multiple programming languages.

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