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(57) Abstract :

The present invention discloses a voice-based debugging assistant device (101) comprising a microphone array (102), speaker unit (103), display module (104), and NLP-enabled processing engine (106). The device detects compiler errors, converts them into plain language explanations, and allows hands-free debugging using verbal commands. It supports multi-language environments, improves accessibility for impaired users, and accelerates error correction in programming workflows.

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