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(57) Abstract :

The present invention discloses a device for automated data structure visualization using holography, comprising a processing unit (101), interpreter module (102), analyzer engine (103), rendering unit (104), and projection system (105). It integrates with programming environments to transform real-time code into 3D holograms representing structures like trees and lists. Gesture control via sensors (106) enhances interactivity. The system aids in debugging and teaching by projecting memory relationships in an intuitive, headgear-free visual form, improving comprehension and collaboration in programming tasks.

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