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(57) Abstract :

The invention discloses an augmented reality tool for enhanced medical training simulations comprising an input imaging data module (101), an AR rendering engine (102), a user interface device (103), a simulation module (104), a performance feedback module (105), and a cloud-based adaptive learning server (106). The system overlays 3D anatomical models and procedural guides into the user's real environment, enabling interactive and immersive simulations. The invention provides real-time feedback, adaptive learning, and collaborative training, ensuring effective, scalable, and ethically sustainable medical education and procedural training.

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