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Photorealistic 3D Digital Objects in AR

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Abstract: *The system focuses on providing an interactive and user-friendly experience by allowing users to view and manipulate 3D models in real time. By using WebAR technology, the solution removes the need for installing heavy mobile applications, making it easy to access and use. The integration of optimized 3D models ensures smooth performance even on devices with limited hardware capabilities.*
This work shows that browser-based Augmented Reality can be effectively used in e-commerce applications to improve product understanding and customer satisfaction. The proposed approach offers a cost-effective and scalable solution for businesses while delivering realistic visualization for users. The system also opens opportunities for future enhancements such as dynamic product databases and advanced AR interactions.

Keywords*:* Augmented Reality, WebAR, Markerless, GLB Format, ARCore, AR.js

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