

CASE STUDY

The Orthodontic AR Experience





OVERVIEW

14+

20+

450+

770+

years of service

countries served

clients across the globe

projects completed

Oodles Technologies is a trusted digital transformation company, empowering businesses with cutting-edge technology solutions since 2009. We specialize in delivering innovative and tailored software solutions to clients across diverse industries, transforming their ideas into reality.







IMAGINE A TECHNOLOGY-DRIVEN WORLD!

Over the course of more than a decade, our growth has been remarkable as we expanded our services to cater to over a hundred clients in various regions, including the US, Australia, Asia, UAE and Europe. Our clientele encompasses a wide spectrum, ranging from startups to Fortune 400+ enterprises.



PROJECT OVERVIEW

♦ CLIENT BACKGROUND

To deliver an intuitive learning experience for orthodontic patients, our client Rasha partnered with Oodles to create a cutting-edge iOS app powered by augmented reality. Targeting the MENA region, the solution combines 3D visualization, AR, and mobile development to offer realistic, interactive oral care tutorials in English and Arabic.

Using Unity 3D, AR Foundation, Vuforia, Swift, and Blender, our experts developed lifelike dental models—empowering users with step-by-step guidance and improved oral hygiene through a professional-grade, immersive experience.

PROJECT CHALLENGES

- 1. The Orthodontic AR Experience presented significant technical challenges, with the primary task being the development of anatomically correct 3D dental models that would render with high fidelity on mobile devices while remaining optimized for performance.
- 2. Secondly, implementing reliable AR marker tracking for precise overlay positioning required frequent testing and refinement to ensure the dental demonstrations appeared correctly aligned from various viewing angles and in different lighting conditions.
- 3. Additionally, bilingual support with proper localization between English and Arabic demanded careful attention to both technical precision and cultural relevance, ensuring translations were accurate, appropriate, and professionally delivered in both languages.



OUR DEVELOPMENT METHODOLOGY

Our development began with detailed planning alongside dental experts, who identified key anatomical markers to guide the visual framework. A parallel workstream ensured seamless technical execution across all aspects. Native iOS development with Swift ensured optimal performance, App Store compliance, and a user-friendly interface. Blender was used to create anatomically accurate 3D models, including braces components, optimized for mobile. AR integration with Unity 3D, AR Foundation, and Vuforia enabled responsive overlays, while bilingual support in English and Arabic was achieved through robust localization.



TECHNOLOGIES & FRAMEWORK EMPLOYED









AR Foundation

The project leveraged complementary technologies to create a seamless experience. Blender enabled precise dental modelling, Unity 3D with AR Foundation and Vuforia powered AR, Swift-based iOS development ensured smooth performance, which was further supported by architecture built for responsive, complex 3D visualization.

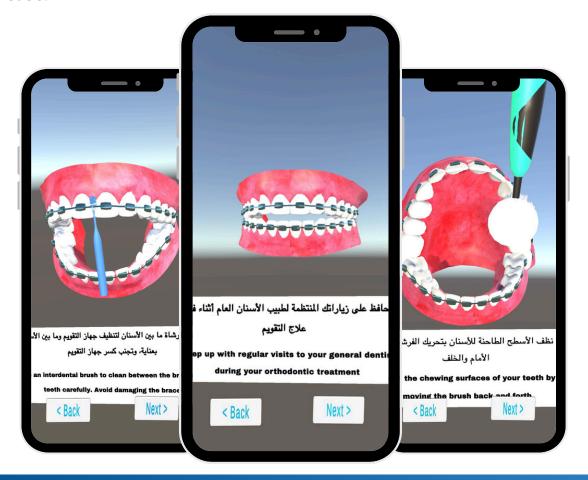




FEATURES & FUNCTIONALITIES

The Orthodontic AR Experience demonstrates the transformative power of immersive education in healthcare education. It provides an interactive, step-by-step AR brushing tutorial that guides users through the Charters Brushing technique, that precise visual cues on the correct angles and movement. The experience also features a flossing and an interdental cleaning demonstration, illustrating proper techniques for using floss threaders and interdental brushes around braces, complemented by clear visualizations of tool positioning.

Camera-based activation overlays educational content onto real-world surfaces, while bilingual support in both English and Arabic ensures accessibility for a broader audience. The intuitive swipe interface and progress tracking further enhances the user experience, empowering individuals to master oral hygiene techniques with confidence and ease.







→ THE OUTCOME

The successful implementation of the Orthodontic AR Experience demonstrates how visualization technology can transform educational healthcare content. Users reported greater clarity and confidence in their brushing techniques, with the immersive format resulting in over 65% higher session times compared to static video tutorials.

The bilingual support improved accessibility across Middle Eastern and North African (MENA) regions, while dentists and orthodontists praised the tool for its effectiveness in simplifying patient education and chairside instructions. This project exemplifies how detailed digital representations can bridge the gap between clinical instruction and practical application, establishing a new standard for orthodontic patient education.

Explore our latest project in action on our YouTube channel



https://youtu.be/-G3iLWjswu4?si=rZdnXi8zzUx13nMv



Thank you, We Appreciate Your Time!

Reach out to us to explore unimagined possibilities and opportunities for your business together!

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