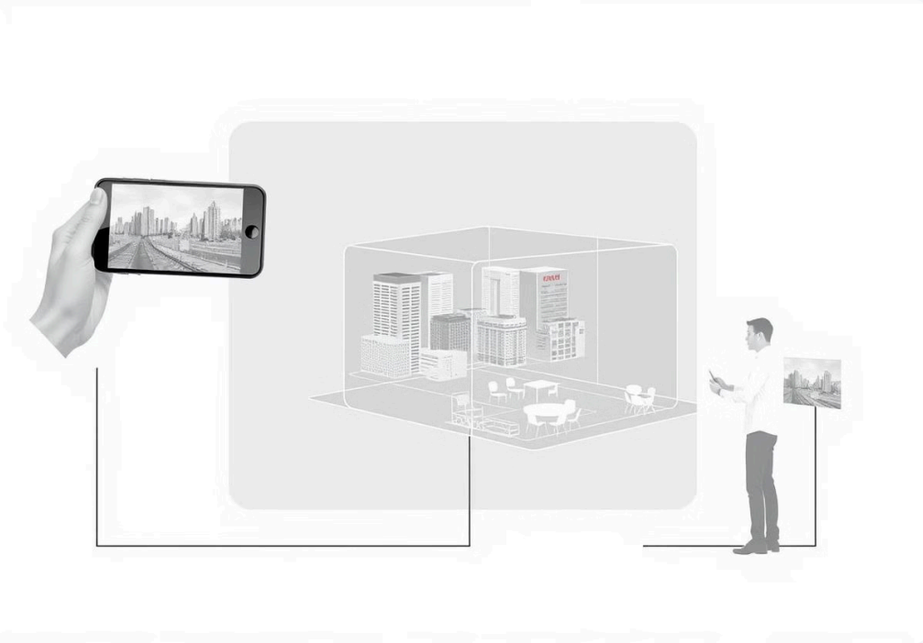
Augmented Reality Integration with Unity

Welcome to this presentation on Augmented Reality (AR) integration with Unity. This project explores AR capabilities within the Unity engine. We'll cover project goals, AR implementation, challenges, and outcomes.

Project Goals and Objectives

The primary goal was to develop a functional AR app using Unity. For example, an interactive AR experience to visualize 3D models. Successfully implement image tracking and object recognition via AR Foundation.

- Integrate virtual objects seamlessly with the real world.
- Optimize AR performance for smooth UX.



AR Implementation in Unity

Unity

Cross-platform AR development framework.

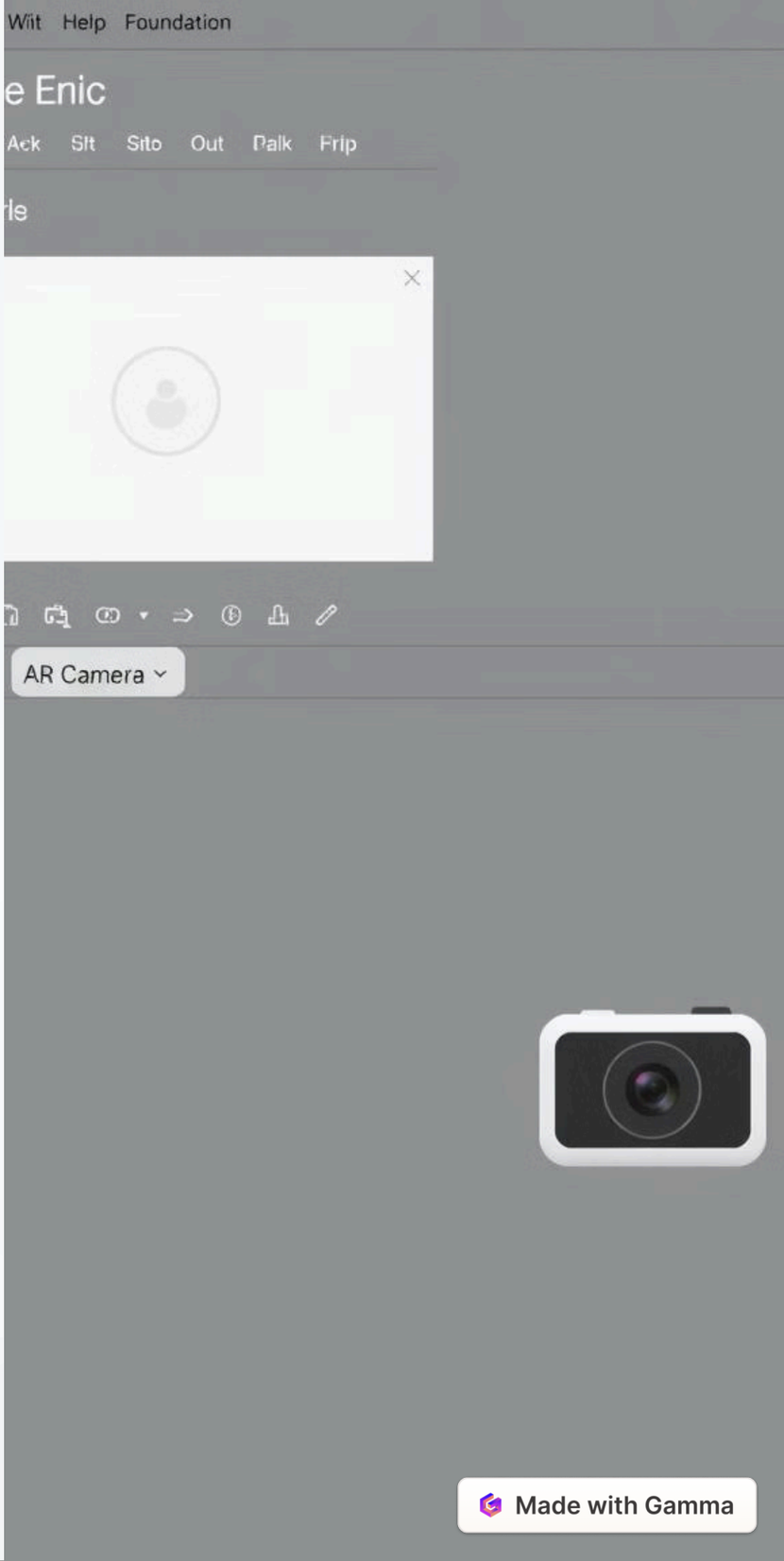
Android

Configure ARCore for proper tracking.

iOS

Configure ARKit for enhanced rendering.

AR Foundation is key with components like AR Session and AR Camera. Set up the environment, install AR Foundation, and configure AR Session Origin. Use ARTrackedImageManager to detect real-world images.



Challenges and Solutions

Tracking Issues

Accuracy in varied lighting.

Performance

Optimization for mobile devices.

Occlusion

Blend virtual and real objects.

Perspective

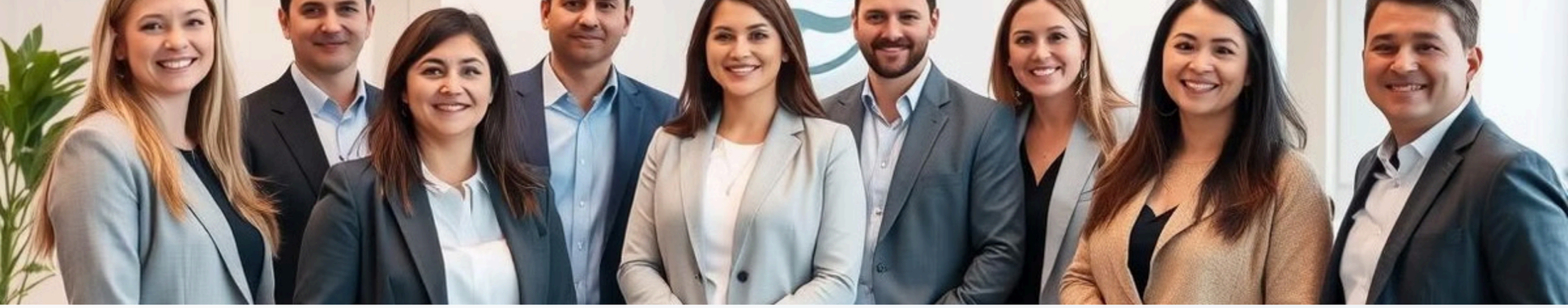
Scale consistency.

Common challenges include tracking accuracy and mobile performance. Use environment probes for lighting, and optimize models. Implement occlusion using depth sensing.

Project Outcomes and Demos

The project successfully integrates virtual objects into the real world. Image tracking and object recognition are implemented. We achieved optimized performance for a smooth AR experience.

- Incorporate advanced AR features.
- Expand application to new platforms.
- Implement cloud-based AR services.



Thank You

Thank you for your time! We successfully integrated AR with Unity. The performance and tracking were optimized. Do you have any questions? Contact us for further inquiries.