VR Juggling Simulator Master's Thesis

Developed a Virtual Reality Juggling Simulator in Unity as part of my Master's thesis to explore motor skill acquisition and compare learning outcomes between VR and real-world training.

- **Realistic Physics**: Designed robust physics for accurate ball trajectories and collisions.
- **Gamified Learning**: Included adjustable difficulty levels, a progression system, and slow motion for personalized training.
- **Intelligent Guidance**: Implemented visual aids and audio guides to assist users with timing and positioning.
- **Enhanced User Experience**: Simplified juggling practice with features like resetting dropped balls at the press of a button.

Results: Used in a study showing that VR training increases engagement and builds foundational skills, even if initial performance transfer to real-world scenarios is limited.

Skills/Tools: Unity, C#, Oculus Quest 2, VR Interaction Design, Physics Simulation.