7. Summary

The most common problem for the users who want to use a VR application that requires room-scale tracking is the cost of entry of a setup capable of room-scale 6-DoF tracking.

This thesis provided a practical implementation of a prototype system capable of room-scale tracking and compatible with the current VR software, while keeping the cost of hardware low compared to previous and current solutions available in the market. The tracking of the real-world points is done in software by combining the real-time pose estimation using ML with traditional triangulation methods.

The speed and accuracy of the developed prototype prove that this approach is feasible for the task at hand and is close to specialized hardware used for this purpose while eliminating the hardware cost barrier by offloading the solution to software implementations and only requiring two standard web cameras in order to operate.