

# Evaluate and improve camera pose estimation

Accurate camera pose estimation is a necessity in many practical applications such as VR, autonomous cars, 3D Reconstruction and so on. For some applications accuracy is more important than real-time camera tracking. ARKit is Apple's tool that can estimate among other things the camera pose using the camera and the IMU. The question is how good does this work? At Volumental we are currently developing an app for scanning feet and we rely on the camera pose that is given by ARKit. In the Master Thesis project we aim to evaluate ARKit and improve it by creating a novel benchmark and derive a new algorithm.

## **About Volumental**

Volumental is a computer vision company from RPL, KTH active in 3D body scanning and product recommendation based on 3D measurements in footwear. Today we have our computer vision systems are deployed across 32 countries and scanning hundreds of thousands of people regularly, working with some of the world's biggest brands. We are a relatively small but growing team of PhDs in computer vision and machine learning and are product RPL-alumni. We are almost half women and hail from 9 different countries, we are located centrally at T-Centralen.

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