

Master's Thesis

## 3D ground truth capture for hand-object interactions

The Dex-YCB dataset from NVIDIA and University of Washington provides visual data on several instances of human hands grasping physical objects. This topic is about augmenting the above dataset with ground-truth information from additional sensors, such as a VR hand-glove and contact sensors.

Apart from ground truth for benchmarking purely visual algorithms, the auxiliary sensors can be fused together with visual data for improved reconstruction of hand-object interactions.

Reference: https://dex-ycb.github.io/

## **Prerequisites**

- Interest and experience in working with hardware -- multiview cameras, VR gloves, self-made embedded sensors.
- Faimiliarity with ROS (www.ros.org)
- C++ for data acquisition and python/C++ for data processing

## **Contact**

https://www.ei.tum.de/lmt/team/mitarbeiter/chaudhari-rahul/

(Please provide your CV and transcript in your application)

## **Advisors**

Rahul Chaudhari