Synthetic-to-Real(istic) image translation

In this thesis, approaches for translating synthetic images of Hand-Object Interactions to realistic ones should be investigated. Some examples of synthetic images and their real counterparts can be viewed: https://github.com/wetoo-cando/blender-hoisynth

The following approaches may be employed:

- Diffusion models
- Neural network-based Image-to-Image translation, e.g. http://opencas.dkfz.de/image2image/
- Differential rendering, e.g. The Mitsuba renderer https://mitsuba.readthedocs.io/en/latest/

Advisors

Rahul Chaudhari