Chair of Media Technology
TUM Department of Electrical and Computer Engineering
Technical University of Munich

TUM

Master's Thesis

Robotic task learning from human demonstration using spherical representations

Autonomous grasping and manipulation are complicated tasks which require precise planning and a high level of scene understanding. Although robot autonomy is evolving since decades, there is still need for improvement, especially for operating in unstructured environments like households. Human demonstration can improve the autonomous robot abilities further to increase the task success in different scenarios. In this thesis we will work on learning from human demonstration for improving the robot autonomy.

Prerequisites

Required background:

- Digital signal processing

- Computer vision

- Neural networks and other ML algorithms

Required abilities:

- Experience with Python or C++

- Experience with Tensorflow or PyTorch

- Motivation to yield a good thesis

Contact

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(Please provide your CV and transcript in your application)

Advisors

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