

Bachelor/Master Thesis:

Machine Learning for Scene Understanding and Representation

- **Setting:**
 - We have multimodal recordings of humans performing everyday activities (e.g., in the kitchen)
 - We want to represent that data to supports open, semantic queries
 - Make use of existing large-scale knowledge bases
- **Tasks:**
 - Use neural networks for representation learning
 - Extend the approach to generalize to new, unseen situations from little data (zero-shot learning)
 - Use the representation for answering different questions about the data
- **Requirements:**
 - Good programming skills (preferably Python)
 - Knowledge in machine learning
 - Interest to work on an actual research question
- **When:** As soon as possible

