

**Name:** Timo Korthals, M.Sc.  
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**Literature:** <https://bit.ly/2pKpJ6q>



**Interests**                      **Learning to Act on Multi-Modal Data** My work tackles the development of **multi-modal deep generative models** to learn **multi-sensory fusion**. In the context of **artificial intelligence**, my approach contributes to **unsupervised curiosity-driven** learning of **active sensing** for a robot fleet equipped with visual, depth, and tactile sensors (**Ph.D. due date 06/20**).

**Skills**                              embedded and high-level programming in C/C++, Python, Tensorflow, curiosity driven / reinforcement / unsupervised / deep / machine learning, information fusion, robotics, ROS, Matlab

## Academic Career

11/18 - today                      **BMBF Project** ML4Pro<sup>2</sup> Machine Learning for Production and Products at the Center of Excellence - Cognitive Interaction Technologies (CITEC) Institute, Bielefeld University

01/17 - 12/19                      **DAAD PPP Grant** for joint project *Learning to act on Multi-Modal Data* in collaboration with Queensland University of Technology

02/15                                  **ERASMUS+ Lecturer** at Aarhus University

07/14 - 10/17                      **BMBF Project** in the Leading Edge Cluster for Cyber-Physical Systems for Electronic Environment Detection and Mapping in Agriculture Scenarios (CITEC)

09/13 - 12/18                      **DFG Project** for Mini Robot Developement (CITEC)

09/13 - 06/14                      **PhD Scholarship Holder** for Mini Robot Developement (CITEC)

## Education

03/12 - 06/13                      **Electrical Engineering Master - University of Paderborn**  
Topic: Unsupervised Learning of Acoustic- and Word-Units via Hierarchical, Generative Models

03/10 - 08/10                      **Peking/China**, Beihang University of Aeronautics & Astronautics

08/07 - 03/12                      **Electrical Engineering Bachelor - University of Paderborn**  
Topic: Evaluation of Algorithms for Creating Disparity Maps on the Basis of Monocular Video Streams

## Competitions

03/12 - 08/16                      **RoboCup** OC Rescue: 2012 Germany (3<sup>rd</sup>); OC @Home: 2014/15 Germany (4<sup>th</sup>, 3<sup>rd</sup>), 2016 Netherlands (2<sup>nd</sup>) WC @Home: 2014 Brasil (3<sup>rd</sup>), 2015 China (3<sup>rd</sup>), 2016 Germany (1<sup>st</sup>)