

# MENGDI LI

Research Associate at University of Hamburg

li\_mengdi@hotmail.com

<https://mengdi-li.github.io/>

## RESEARCH INTERESTS

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**Fields:** Machine Learning, Robotics

**Topics:** Reinforcement Learning, Large Language Models, Embodied Agents

## EDUCATION

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**University of Hamburg**

Ph.D. in Artificial Intelligence

*Oct 2019 - Present*

Advisor: Prof. Stefan Wermter

**China Agricultural University**

*Sep 2016 - July 2019*

M.S. in Computer Science

Advisor: Prof. Yiming Xue

**China Agricultural University**

*Sep 2012 - July 2016*

B.E. in Electronic Engineer

Advisor: Prof. Yiming Xue

## WORK EXPERIENCE

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**Knowledge Technology, University of Hamburg**

*Oct 2019 - Present*

Research Associate

## AWARDS & HONORS

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Outstanding Undergraduate Thesis of China Agricultural University (Top 3%)

2016

## PUBLICATIONS

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Chat with the Environment: Interactive Multimodal Perception using Large Language Models

Xufeng Zhao, **Mengdi Li**, Cornelius Weber, Burhan Hafez, Stefan Wermter

International Conference on Intelligent Robots and Systems (IROS), 2023

Internally Rewarded Reinforcement Learning

**Mengdi Li**, Xufeng Zhao, Jae Hee Lee, Cornelius Weber, Stefan Wermter

International Conference on Machine Learning (ICML), 2023

Visually Grounded Commonsense Knowledge Acquisition

AAAI Yuan Yao, Tianyu Yu, Ao Zhang, **Mengdi Li**, Ruobing Xie, Cornelius Weber, Zhiyuan Liu, Hai-Tao Zheng, Stefan Wermter, Tat-Seng Chua, Maosong Sun

The AAAI Conference on Artificial Intelligence (AAAI), 2022

Learning Visually Grounded Human-Robot Dialog in a Hybrid Neural Architecture

Xiaowen Sun, Cornelius Weber, Matthias Kerzel, Tom Weber, **Mengdi Li**, Stefan Wermter

International Conference on Artificial Neural Networks (ICANN), 2022

Spatial Relation Learning in Complementary Scenarios with Deep Neural Networks

Jae Hee Lee, Yuan Yao, Ozan Özdemiş, **Mengdi Li**, Cornelius Weber, Zhiyuan Liu, Stefan Wermter

Frontiers in Neurorobotics, 2022

Robotic Occlusion Reasoning for Efficient Object Existence Prediction

**Mengdi Li**, Cornelius Weber, Matthias Kerzel, Jae Hee Lee, Zheni Zeng, Zhiyuan Liu, Stefan Wermter  
International Conference on Intelligent Robots and Systems (IROS), 2021

Visual Distant Supervision for Scene Graph Generation

Yuan Yao, Ao Zhang, Xu Han, **Mengdi Li**, Cornelius Weber, Zhiyuan Liu, Stefan Wermter, Maosong Sun

International Conference on Computer Vision (ICCV), 2021

Modern Imaging Techniques in Plant Nutrition Analysis: A Review

Daoliang Li, Cheng Li, Yuan Yao, **Mengdi Li**, Licheng Liu  
Computers and Electronics in Agriculture, 2020

Neural Networks for Detecting Irrelevant Questions During Visual Question Answering

**Mengdi Li**, Cornelius Weber, Stefan Wermter

International Conference on Artificial Neural Networks (ICANN), 2020

A Novel Natural Language Steganographic Framework based on Image Description Neural Network

Juan Wen, Xuejing Zhou, **Mengdi Li**, Ping Zhong, Yiming Xue

Journal of Visual Communication and Image Representation, 2019

Generating Steganographic Image Description by Dynamic Synonym Substitution

**Mengdi Li**, Kai Mu, Ping Zhong, Juan Wen, Yiming Xue

Signal Processing, 2019

Image Steganalysis in High-dimensional Feature Spaces with Proximal Support Vector Machine

Ping Zhong, **Mengdi Li**, Kai Mu, Juan Wen, Yiming Xue

International Journal of Digital Crime and Forensics (IJDCF), 2019