

MENGDI LI

Research Associate at University of Hamburg

li_mengdi@hotmail.com

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

RESEARCH INTERESTS

Fields: Machine Learning, Robotics

Topics: Reinforcement Learning, Large Language Models, Embodied Agents

EDUCATION

University of Hamburg

Ph.D. in Artificial Intelligence

Oct 2019 - Present

Advisor: Prof. Stefan Wermter

China Agricultural University

M.S. in Computer Science

Sep 2016 - July 2019

Advisor: Prof. Yiming Xue

China Agricultural University

B.E. in Electronic Engineer

Sep 2012 - July 2016

Advisor: Prof. Yiming Xue

WORK EXPERIENCE

Knowledge Technology, University of Hamburg

Research Associate

Oct 2019 - Present

AWARDS & HONORS

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

2016

PUBLICATIONS

Accelerating Reinforcement Learning of Robotic Manipulations via Feedback from Large Language Models

Kun Chu, Xufeng Zhao, Cornelius Weber, **Mengdi Li**, Stefan Wermter

The Conference on Robot Learning (CoRL), Workshop (Oral), 2023

A Closer Look at Reward Decomposition for High-Level Robotic Explanations

Wenhao Lu, Xufeng Zhao, Sven Magg, Martin Gromniak, **Mengdi Li**, Stefan Wermter

IEEE International Conference on Development and Learning (ICDL), 2023

Enhancing Zero-Shot Chain-of-Thought Reasoning in Large Language Models through Logic

Xufeng Zhao, **Mengdi Li**, Wenhao Lu, Cornelius Weber, Jae Hee Lee, Kun Chu, Stefan Wermter

arXiv preprint, 2023

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

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 Özdemir, **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