MENGDI LI

Ph.D. Student 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 *Oct 2019 - Present*
Ph.D. in Artificial Intelligence 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

Knowledge Technology, University of Hamburg *Oct 2019 - Present*
Research Associate

AWARDS & HONORS

Outstanding Undergraduate Thesis of China Agricultural University (Top 3%) 2016

PUBLICATIONS

Causal State Distillation for Explainable Reinforcement Learning
Wenhao Lu, Xufeng Zhao, Thilo Fryen, Jae Hee Lee, **Mengdi Li**, Sven Magg, Stefan Wermter
The Conference on Causal Learning and Reasoning (CLeaR), **Oral Presentation**, 2024

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 Presentation**, 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