李磊

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工作经历

教授   *2026–至今*
北京理工大学，人工智能学院
- 多模态模型：大模型，认知智能，具身智能与物理智能；
- 生成智能：虚拟/数字人；3D/视频方向的生成和理解；
- AI4Science：多模态医疗，康复，运动大模型

研究科学家   *2024–2026*
华盛顿大学（*University of Washington*）首席科学家 @AI 智库（*AIThinktank*）
- 大规模多模态/语言模型的表征学习、生成与理解
- 具身智能与物理智能；虚拟/数字人；3D/视频/人体方向的 AIGC

科学家（Adjunct Scientist）   *2024-2026*
新加坡研究院 *A**
- 面向远程医疗的虚拟/数字人智能
- 医疗与健康领域的多模态表征学习

研究员   *2020–2024*
哥本哈根大学（*KU*）& 丹麦人工智能先锋中心
- **研究方向一：多模态表征学习**
  - 面向图像、3D 点云与上下文数据的多模态学习
  - 人体/具身表征学习与医疗模型开发
- **研究方向二：3D 理解/生成的深度学习**
  - 3D 点云与 2D 图像的表示学习
  - 面向 3D 物体、场景与人体的生成式 AI

高级研究员   *2018–2020*
商汤研究院（*SenseTime*）
- 移动端 AR/VR/MR 技术研发
- 人体 AR、直播互动与 3D 理解
- 多模态模型表征

研究员   *2017–2018*
英特尔体育事业部，英特尔中国研究院
- 沉浸式 AR/VR 赛事直播
- 奥运会足球与 NFL 美式橄榄球的 AI 直播系统

学术服务

分会主席： AAAI, CGI
程序委员会： AAAI；GEOProcessing
审稿：
- 会议：CVPR，ICCV，ECCV，NeurIPS，ICLR，ICML 等
- 期刊：TPAMI，TMI，TMC，Information Fusion，TIP 等

教学： 机器学习、深度学习高级课程、人工智能导论

部分论文

Intrinsic Entropy of Context Length Scaling in LLMs.
ICLR 2026

Jingzhe Shi, Qinwei Ma, Hongyi Liu, Hang Zhao, Jenq-Neng Hwang, Lei Li*.

RAM: Recover Any 3D Human Motion in-the-Wild.
CVPR 2026

Sen Jia, Ning Zhu, Jinqin Zhong, Jiale Zhou, Zhang Huaping, Jenq-Neng Hwang, Lei Li*.

CLEP: Contrastive Language-Pose Pretraining.
CVPR 2026

Sen Jia, Huayu Wang, Hsiang-Wei Huang, Zhaochong An, Jenq-Neng Hwang, Zhang Huaping, Lei Li*.

Learning to Learn Weight Generation via Local Consistency Diffusion.
CVPR 2026

Yunchuan Guan, Yu Liu, Ke Zhou, Zhiqi Shen, Jenq-Neng Hwang, Lei Li*.

PSGS: Text-driven Panorama Sliding Scene Generation via Gaussian Splatting.
ICASSP 2026

Xin Zhang, Shen Chen, Jiale Zhou, Lei Li*.

CAS-ViT: Convolutional Additive Self-attention Vision Transformers for Efficient Mobile Applications.
IEEE TIP 2026

Tianfang Zhang, Lei Li, Yang Zhou, Wentao Liu, Chen Qian, Jenq-Neng Hwang, Xiangyang Ji.

Multiple Human Motion Understanding.
AAAI 2026

Lei Li*, Sen Jia, Jenq-Neng Hwang.

3DSceneEditor: Controllable 3D Scene Editing with Gaussian Splatting.
WACV 2026

Ziyang Yan, Yihua Shao, Minwen Liao, Siyu Chen, Nan Wang, Muyuan Lin, Jenq-Neng Hwang, Hao Zhao, Fabio Remondino, Lei Li*.

Is Meta-Learning Out? Rethinking Unsupervised Few-Shot Classification with Limited Entropy.
ICCV 2025

Yunchuan Guan, Yu Liu, Ke Zhou, Zhiqi Shen, Jenq-Neng Hwang, Serge Belongie, Lei Li*.

AU-Blendshape for Fine-grained Stylized 3D Facial Expression Manipulation.
ICCV 2025

Hao Li, Ju Dai, Feng Zhou, Kaida Ning, Lei Li, Junjun Pan.

PAMN: Multi-phase Correlation Modeling for Contrast-Enhanced 3D Medical Image Retrieval.
EMNLP 2025

Haonan Tong, Ke Liu, Chuang Zhang, Xinglin Zhang, Tao Chen, Jenq-Neng Hwang, Lei Li*.

Learning an Efficient Optimizer via Hybrid-Policy Sub-Trajectory Balance.
ECAI 2025

Yunchuan Guan, Yu Liu, Ke Zhou, Hui Li, Sen Jia, Zhiqi Shen, Ziyang Wang, Xinglin Zhang, Tao Chen, Jenq-Neng Hwang, Lei Li*.

Attention Consistency for LLMs Explanation.
EMNLP 2025

Tian Lan, Jinyuan Xu, Xue He, Jenq-Neng Hwang, Lei Li*.

MoCount: Motion-Based Repetitive Action Counting.
ACMMM 2025

Ruocheng Gu, Sen Jia, Yule Ma, Jinqin Zhong, Jenq-Neng Hwang, Lei Li*.

Graph Canvas for Controllable 3D Scene Generation.
ACMMM 2025

Libin Liu, Shen Chen, Sen Jia, Jingzhe Shi, Can Jin, Zongkai Wu, Jenq-Neng Hwang, Lei Li*.

Medal S: Spatio-Textual Prompt Model for Medical Segmentation.
CVPR 2025

Pengcheng Shi, Jiawei Chen, Jiaqi Liu, Xinglin Zhang, Tao Chen, Lei Li*.

CountLLM: Towards Generalizable Repetitive Action Counting via Large Language Model.
CVPR 2025

Ziyu Yao, Xuxin Cheng, Zhiqi Huang, Lei Li*.

Wav2Sem: Plug-and-Play Audio Semantic Decoupling for 3D Speech-Driven Facial Animation.
CVPR 2025

Hao Li, Ju Dai, Xin Zhao, Feng Zhou, Junjun Pan, Lei Li.
Human Motion Instruction Tuning. CVPR 2025

Lei Li*, Sen Jia, Jianhao Wang, Zhongyu Jiang, Feng Zhou, Ju Dai, Tianfang Zhang, Zongkai Wu, Jenq-Neng Hwang.
Bayesian Optimization for Controlled Image Editing via LLMs. ACL 2025

Chengkun Cai, Haoliang Liu, Xu Zhao, Zhongyu Jiang, Tianfang Zhang, Zongkai Wu, John Lee, Jenq-Neng Hwang, Lei Li*.
The Role of Deductive and Inductive Reasoning in LLMs. ACL 2025

Chengkun Cai, Xu Zhao, Haoliang Liu, Zhongyu Jiang, Tianfang Zhang, Zongkai Wu, Jenq-Neng Hwang, Lei Li*.
In-Context Meta LoRA Generation. IJCAI 2025

Yihua Shao, Minxi Yan, Yang Liu, Siyu Chen, Wenjie Chen, Xinwei Long, Ziyang Yan, Lei Li, Chenyu Zhang, Nicu Sebe, Hao Tang, Yan Wang, Hao Zhao, Mengzhu Wang, Jingcai Guo.

Position-aware Guided Point Cloud Completion with CLIP Model. AAAI 2025

Feng Zhou, Qi Zhang, Ju Dai, Lei Li, Qing Fan, Junliang Xing.
UniHPR: Unified Human Pose Representation via Singular Value Contrastive Learning. MIPR 2025 *(Best Paper)*

Zhongyu Jiang, Wenhao Chai, Lei Li*, Zhuoran Zhou, Cheng-Yen Yang, Jenq-Neng Hwang.

Coarse-to-Fine Personalized LLM Impressions for Streamlined Radiology Reports. ICML 2025 Workshop

Chengbo Sun, Hui Yi Leong, Lei Li*.
TinyMentalLLMs Enable Depression Detection in Chinese Social Media Texts. RANLP 2025

Jinyuan Xu, Tian Lan, Mathieu Valette, Pierre Magistry, Lei Li*.
Reassessing the Role of Chain-of-Thought in Sentiment Analysis: Insights and Limitations. ICIC 2025

Kaiyuan Zheng, Qinghua Zhao, Lei Li.
Medal S: Spatio-Textual Prompt Model for Medical Segmentation. CVPR 2025 Workshop *(Honorable Mention)*

Pengcheng Shi, Jiawei Chen, Jiaqi Liu, Xinglin Zhang, Tao Chen, Lei Li*.
CMU-FlowNet: Exploring Point Cloud Scene Flow Estimation in Occluded Scenario. CVM 2025

Jingze Chen, Lei Li, Zerui Tang, Qiqin Lin, Junfeng Yao.
You Only Speak Once to See. ICASSP 2025

Wenhao Yang, Jianguo Wei, Wenhuan Lu, Lei Li*.
Dense Point Clouds Matter: Dust-GS for Scene Reconstruction from Sparse Viewpoints. ICASSP 2025

Shan Chen, Jiale Zhou, Lei Li*.
MonoMM: A Multi-scale Mamba-Enhanced Network for Real-time Monocular 3D Object Detection. The Journal of Supercomputing 2025

Youjia Fu, Zihao Xu, Junsong Fu, Huixia Xue, Shuqiu Tan, Lei Li*, Shaoxun Qing.
Addressing Domain Shift via Imbalance-Aware Domain Adaptation in Embryo Development Assessment. Mathematical Biosciences and Engineering 2025

Lei Li*, Xinglin Zhang, Jun Liang, Huang Mengqian, Tao Chen.
Scaling Law for Time Series Forecasting. NeurIPS 2024

Jingzhe Shi, Qinwei Ma, Huan Ma, Lei Li*.
CHOPS: CHat with custOmer Profile Systems for Customer Service with LLMs. COLM 2024

Jingzhe Shi, Jialuo Li, Qinwei Ma, Zaiwen Yang, Huan Ma, Lei Li*.
SSFlowNet: Semi-supervised Scene Flow Estimation on Point Clouds with Pseudo Label. ICANN 2024

Jingze Chen, Simiao Zhuang, Qiqin Lin, Junfeng Yao, Lei Li.
Robust Channel Learning for Large-Scale Radio Speaker Verification. IEEE Journal of Selected Topics in Signal Processing 2024

Wenhao Yang, Jianguo Wei, Wenhuan Lu, Lei Li, Xugang Lu.

Incentive Mechanism for Uncertain Tasks under Differential Privacy. IEEE Transactions on Services Computing 2024

Xikun Jiang, Chenhao Ying, Lei Li, Boris Düdder, Haiqin Wu, Haiming Jin, Yuan Luo.

Deep Point Cloud Regression for Above-ground Forest Biomass Estimation from Airborne LiDAR. Remote Sensing of Environment 2024

Stefan Oehmcke, Lei Li#, Katerina Trepekli, Jaime C. Revenga, Thomas Nord-Larsen, Fabian Gieseke, Christian Igel.

A Multi-objective Optimization Framework for Terrain Modification Based on a Combined Hydrological and Earthwork Cost-Benefit. Journal of Hydrology 2024

Hanwen Xu, Mark Randall, Lei Li, Yuyi Tan, Thomas Balstrøm.

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Lei Li.

Back to Optimization: Diffusion-based Zero-shot 3D Human Pose Estimation. WACV 2024

Zhongyu Jiang, Zhuoran Zhou, Lei Li*, Wenhao Chai, Cheng-Yen Yang, Jenq-Neng Hwang.

RPCANet: Deep Unfolding RPCA Based Infrared Small Target Detection. WACV 2024

Fengyi Wu, Tianfang Zhang, Lei Li, Yian Huang, Zhenming Peng.

Efficient Domain Adaptation via Generative Prior for 3D Infant Pose Estimation. WACV 2024

Zhuoran Zhou, Zhongyu Jiang, Wenhao Chai, Cheng-Yen Yang, Lei Li*, Jenq-Neng Hwang.

Multi-scale Pseudo Labeling for Unsupervised Deep Edge Detection. Knowledge-Based Systems 2024

Changsheng Zhou, Chao Yuan, Hongxin Wang, Lei Li, Stefan Oehmcke, Junmin Liu, Jigen Peng.

Optimization-inspired Cumulative Transmission Network for Image Compressive Sensing. Knowledge-Based Systems 2023

Tianfang Zhang, Lei Li#, Zhenming Peng.

Mask-FPAN: Semi-supervised Face Parsing in the Wild with De-occlusion and UV GAN. Computers & Graphics 2023

Lei Li*, Tianfang Zhang, Zhongfeng Kang, Xikun Jiang.

Segment Any Building. CGI 2023

Lei Li.

Hierarchical Edge Aware Learning for 3D Point Cloud. CGI 2023

Lei Li.

Surgical Treatment of Complex Liver Tumors with AI. Book 2023

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Attention-guided Pyramid Context Networks for Detecting Infrared Small Target under Complex Background. IEEE Transactions on Aerospace and Electronic Systems 2023

Tianfang Zhang, Lei Li, Siying Cao, Tian Pu, Zhenming Peng.

LR-CSNet: Low-rank Deep Unfolding Network for Image Compressive Sensing. ICCC 2022 *(Best Paper)*

Tianfang Zhang, Lei Li#, Christian Igel, Stefan Oehmcke, Fabian Gieseke, Zhenming Peng.

Deep Learning Based 3D Point Cloud Regression for Estimating Forest Biomass. SIGSPATIAL 2022

Stefan Oehmcke, Lei Li*, Jaime C Revenga, Thomas Nord-Larsen, Katerina Trepekli, Fabian Gieseke, Christian Igel.

Above-ground Biomass Prediction for Croplands at a Sub-meter Resolution Using UAV–LiDAR and Machine Learning Methods. Remote Sensing 2022

Jaime C Revenga, Katerina Trepekli, Stefan Oehmcke, Rasmus Jensen, Lei Li, Christian Igel, Fabian Cristian Gieseke, Thomas Friborg.

BuildSeg: A General Framework for the Segmentation of Buildings. Nordic Machine Intelligence 2022

Lei Li, Tianfang Zhang, Stefan Oehmcke, Fabian Gieseke, Christian Igel.

Surgical Treatment of Liver Cancer Complicated with Inferior Vena Cava Tumor Thrombus.   Book 2021

Li Aijun, Chen Keji, Wu Bin, Lang Xilong, Li Lei, Ma Senlin, Wang Weijuan, Fang Kunpeng, Yin Lei, Kuang Yue, Liu Chao, Li Yong, Xiong Zhengxiang, Li Yi, Geng Li.

FACT: Fused Attention for Clothing Transfer with Generative Adversarial Networks.   AAAI 2020

Yicheng Zhang, Lei Li, Li Song, Rong Xie, Wenjun Zhang.