ZHILI LIU (刘智立)

+852-61530640 (Hong Kong) ◇ +86-13482763298 (Mainland China)

Email: zhili.liu@connect.ust.hk ◇ Homepage: Capricious-Liu.github.io

EDUCATION

The Hong Kong University of Science and Technology Hong Kong, China
Ph.D in *Computer Science* Feb 2020 - now
Supervised by Prof. James T. Kwok

The Chinese University of Hong Kong Hong Kong, China
M.Sc. in *Computer Science* Sep 2018 - Jul 2019
Supervised by Prof. Bei Yu
GPA: 3.39/4.0

Tongji University Shanghai, China
B.Eng. in *Software Engineering* Sep 2014 - Jul 2018
GPA: 91.2/100
Ranking: 6/182 (overall) 1/32(Multimedia Science)

EXPERIENCE

Huawei Noah's Ark Lab Hong Kong, China
Intern @ *AI theory Lab*, supervised by Prof. Zhenguo Li Jun 2019 - Now

The Chinese University of Hong Kong Hong Kong, China
Research Assistant, supervised by Prof. Bei Yu Sep 2018 - May 2019

Microsoft Research Asia Beijing, China
Intern @ *Intelligent Multimedia Group*, supervised by Dr. Chong Luo Jan 2018 - Jul 2018

CCi Intelligence Co., Ltd Shanghai, China
Research Intern Jul 2017 - Jan 2018

PUBLICATIONS

Interest: Mixture of Experts, Multi-modal Large Language Model, Model Reasoning & Safety

Yunhao Gou, Hansi Yang, **Zhili Liu**, Kai Chen, Yihan Zeng, Lanqing HONG, Zhenguo Li, Qun Liu, Bo Han, James Kwok, Yu Zhang *Corrupted but Not Broken: Understanding and Mitigating the Negative Impacts of Corrupted Data in Visual Instruction Tuning*, EMNLP 2025

Zhili Liu*, Yunhao Gou*, Kai Chen*, Lanqing Hong, Jiahui Gao, Fei Mi, Yu Zhang, Zhenguo Li, Xin Jiang, Qun Liu, James T. Kwok, *Mixture of insighTful Experts (MoTE): The Synergy of Thought Chains and Expert Mixtures in Self-Alignment*, ACL 2025

Kai Chen*, Yunhao Gou*, Runhui Huang*, **Zhili Liu***, Daxin Tan*, Jing Xu, Chunwei Wang, Yi Zhu, Yihan Zeng, Kuo Yang, Dingdong Wang, Kun Xiang, Haoyuan Li, Haoli Bai, Jianhua Han, Xiaohui Li, Weike Jin, Nian Xie, Yu Zhang, James T. Kwok, Hengshuang Zhao, Xiaodan Liang, Dit-Yan Yeung, Xiao Chen, Zhenguo Li, Wei Zhang, Qun Liu, Jun Yao, Lanqing Hong, Lu Hou, Hang Xu. *EMOVA: Empowering Language Models to See, Hear and Speak with Vivid Emotions*, CVPR 2025

Yue Jiang, Haokun Lin, Yang Bai, Bo Peng, **Zhili Liu**, Yueming Lyu, Yong Yang, Jing Dong. *Image-level Memorization Detection via Inversion-based Inference Perturbation*, ICLR 2025

Pengxiang Li*, Kai Chen*, **Zhili Liu***, Ruiyuan Gao, Lanqing Hong, Guo Zhou, Hua Yao, Dit-Yan Yeung, Huchuan Lu, Xu Jia *TrackDiffusion: Tracklet-Conditioned Video Generation via Diffusion Models*, WACV 2025

Zhili Liu, Kai Chen, Yifan Zhang, Jianhua Han, Lanqing Hong, Hang Xu, Zhenguo Li, Dit-Yan Yeung, James Kwok. *Implicit Concept Removal of Diffusion Models*, ECCV 2024

Yunhao Gou*, Kai Chen*, **Zhili Liu***, Lanqing Hong, Hang Xu, Zhenguo Li, Dit-Yan Yeung, James Kwok, Yu Zhang. *Eyes Closed, Safety On: Protecting Multimodal LLMs via Image-to-Text Transformation*, ECCV 2024

Haochen Tan, Zhijiang Guo, Zhan Shi, Lu Xu, **Zhili Liu**, Yunlong Feng, Xiaoguang Li, Yasheng Wang, Lifeng Shang, Qun Liu, Linqi Song. *PROXYQA: An Alternative Framework for Evaluating Long-Form Text Generation with Large Language Models*, ACL 2024.

Haokun Lin, Haoli Bai, **Zhili Liu**, Lu Hou, Muyi Sun, Linqi Song, Ying Wei, Zhenan Sun. *MoPE-CLIP: Structured Pruning for Efficient Vision-Language Models with Module-wise Pruning Error Metric*, CVPR 2024.

Enze Xie, Lewei Yao, Han Shi, **Zhili Liu**, Daquan Zhou, Zhaoqiang Liu, Jiawei Li, Zhenguo Li. *DiffFit: Unlocking Transferability of Large Diffusion Models via Simple Parameter-Efficient Fine-Tuning*, ICCV 2023 Oral.

Tianyang Hu, **Zhili Liu**, Fengwei Zhou, Wenjia Wang, Weiran Huang. *Your contrastive learning is secretly doing stochastic neighbor embedding*, ICLR 2023.

Zhili Liu, Kai Chen, Jianhua Han, Lanqing Hong, Hang Xu, Zhenguo Li, James Kwok. *Task-customized Masked Autoencoder via Mixture of Cluster-conditional Experts*, ICLR 2023 Spotlight.

Kai Chen*, **Zhili Liu***, Lanqing Hong, Hang Xu, Zhenguo Li, Dit-Yan Yeung. *Mixed autoencoder for self-supervised visual representation learning*, CVPR 2023.

Zhili Liu, Jianhua Han, Kai Chen, Lanqing Hong, Hang Xu, Chunjing Xu, Zhenguo Li. *Task-Customized Self-Supervised Pre-training with Scalable Dynamic Routing*, AAAI 2022.

Linpu Fang, Hang Xu, **Zhili Liu**, Sarah Parisot, Zhenguo Li. *EHSOD: CAM-Guided End-to-end Hybrid-Supervised Object Detection with Cascade Refinement*, AAAI 2020

PREPRINTS

Yunhao Gou*, Kai Chen*, **Zhili Liu***, Lanqing Hong, Xin Jin, Zhenguo Li, James T. Kwok, Yu Zhang *Perceptual Decoupling for Scalable Multi-modal Reasoning via Reward-Optimized Captioning*, arXiv:2506.04559 (2025)

Yunhao Gou*, **Zhili Liu***, Kai Chen*, Lanqing Hong, Hang Xu, Aoxue Li, Dit-Yan Yeung, James T. Kwok, Yu Zhang *Mixture of Cluster-conditional LoRA Experts for Vision-language Instruction Tuning*, arXiv:2312.12379 (2023)

Qijun Luo*, **Zhili Liu***, Lanqing Hong, Chongxuan Li, Kuo Yang, Liyuan Wang, Fengwei Zhou, Guilin Li, Zhenguo Li, Jun Zhu. *EHSOD: CAM-Guided End-to-end Hybrid-Supervised Object Detection with Cascade Refinement*, arXiv:2101.01400 (2021)

(* indicates equal contribution)

PATENT

[CN112633385A] **Zhili Liu,** Qijun Luo, Lanqing Hong, Chongxuan Li, Jun Zhu, Zhenguo Li. *Relaxed conditional image transfer for semi-supervised domain adaptation*, Published at Apr 8th, 2025

[CN111291809A] Hang Xu, **Zhili Liu**, Fengwei Zhou, Jiawei Li, Xiaodan Liang, Zhenguo Li, Li Qian *Relaxed conditional image transfer for semi-supervised domain adaptation*, Published at Apr 12th, 2024

SELECTED HONOURS

CUHK Entrance Scholarship & Distinguished Academic Performance Scholarship (top 3%)	2019/2018
Shanghai Outstanding Graduates, Shanghai (Top 5%)	2018
Scholarship for Outstanding Student, Tongji University (Top 5%)	2017/2016/2015

ACADEMIC SERVICES

Conference Reviewer

International Conference on Learning Representations (ICLR)

International Conference on Machine Learning (ICML)

Neural Information Processing Systems (NeurIPS)

IEEE Conference on Computer Vision and Pattern Recognition (CVPR)

IEEE International Conference on Computer Vision (ICCV)

European Conference on Computer Vision (ECCV)

AAAI Conference on Artificial Intelligence (AAAI)

International Joint Conferences on Artificial Intelligence (IJCAI)

Journal Reviewer

IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

IEEE Transactions on Image Processing (TIP)

IEEE Transactions on Neural Networks and Learning Systems (TNNLS)

The Journal of Artificial Intelligence (AIJ)