

# ZHILI LIU (刘智立)

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## EDUCATION

<b>The Hong Kong University of Science and Technology</b> Ph.D in <i>Computer Science</i> , supervised by Prof. <a href="#">James T. Kwok</a>	Hong Kong, China Feb 2020 - now
<b>The Chinese University of Hong Kong</b> M.Sc. in <i>Computer Science</i> , supervised by Prof. <a href="#">Bei Yu</a> GPA: 3.39/4.0	Hong Kong, China Sep 2018 - Jul 2019
<b>Tongji University</b> B.Eng. in <i>Software Engineering</i> GPA: 91.2/100      Ranking: 6/182 (overall)    1/32(Multimedia Science)	Shanghai, China Sep 2014 - Jul 2018

## EXPERIENCE

<b>Huawei Noah's Ark Lab</b> Intern @ <i>AI theory Lab</i> , supervised by Prof. <a href="#">Zhenguo Li</a>	Hong Kong, China Jun 2019 - Now
<b>The Chinese University of Hong Kong</b> Research Assistant, supervised by Prof. <a href="#">Bei Yu</a>	Hong Kong, China Sep 2018 - May 2019
<b>Microsoft Research Asia</b> Intern @ <i>Intelligent Multimedia Group</i> , supervised by Dr. <a href="#">Chong Luo</a>	Beijing, China Jan 2018 - Jul 2018
<b>CCi Intelligence Co., Ltd</b> Research Intern	Shanghai, China Jul 2017 - Jan 2018

## SELECTED PUBLICATIONS

Full publication list on my [Google Scholar](#). (\* denotes equal contribution)

### I. Multi-modal Foundation Models

- [1] **EMOVA: Empowering Language Models to See, Hear and Speak with Vivid Emotions** CVPR 2025  
Kai Chen\*, Yunhao Gou\*, Runhui Huang\*, **Zhili Liu\***, Daxin Tan\*, and other 26 authors
- [2] **Corrupted but Not Broken: Understanding and Mitigating the Negative Impacts of Corrupted Data in Visual Instruction Tuning** EMNLP 2025 **Oral**  
Yunhao Gou, Hansi Yang, **Zhili Liu**, Kai Chen, Yihan Zeng, Lanqing Hong, Zhenguo Li, Qun Liu, Bo Han, James Kwok, Yu Zhang

### II. Multi-modal Foundation Models - Mixture of Cluster-conditional Experts

- [3] **Mixture of Cluster-conditional LoRA Experts for Vision-language Instruction Tuning** TIP 2026  
Yunhao Gou\*, **Zhili Liu\***, Kai Chen\*, Lanqing Hong, Hang Xu, Aoxue Li, Dit-Yan Yeung, James T. Kwok, Yu Zhang
- [4] **Task-customized Masked Autoencoder via Mixture of Cluster-conditional Experts** ICLR 2023 **Spotlight**  
**Zhili Liu**, Kai Chen, Jianhua Han, Lanqing Hong, Hang Xu, Zhenguo Li, James Kwok

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

### III. Multi-modal Foundation Models - Post-training (Reasoning & Safety)

- [6] **Perceptual Decoupling for Scalable Multi-modal Reasoning via Reward-Optimized Captioning** ICLR 2026  
 Yunhao Gou\*, Kai Chen\*, **Zhili Liu\***, Lanqing Hong, Xin Jin, Zhenguo Li, James T. Kwok, Yu Zhang
- [7] **AtomThink: Multimodal Slow Thinking with Atomic Step Reasoning** TPAMI 2026  
 Kun Xiang\*, **Zhili Liu\***, Terry Jingchen Zhang, Yinya Huang, Yunshuang Nie, Kaixin Cai, Yiyang Yin, Runhui Huang, Hanhui Li, Yihan Zeng, Yu-Jie Yuan, Jianhua Han, Lanqing Hong, Hang Xu, Xiaodan Liang
- [8] **Mixture of insighTful Experts (MoTE): The Synergy of Thought Chains and Expert Mixtures in Self-Alignment** ACL 2025  
**Zhili Liu\***, Yunhao Gou\*, Kai Chen\*, Lanqing Hong, Jiahui Gao, Fei Mi, Yu Zhang, Zhenguo Li, Xin Jiang, Qun Liu, James T. Kwok
- [9] **Implicit Concept Removal of Diffusion Models** ECCV 2024  
**Zhili Liu**, Kai Chen, Yifan Zhang, Jianhua Han, Lanqing Hong, Hang Xu, Zhenguo Li, Dit-Yan Yeung, James Kwok
- [10] **Eyes Closed, Safety On: Protecting Multimodal LLMs via Image-to-Text Transformation** ECCV 2024  
 Yunhao Gou\*, Kai Chen\*, **Zhili Liu\***, Lanqing Hong, Hang Xu, Zhenguo Li, Dit-Yan Yeung, James Kwok, Yu Zhang

### IV. Others

- [11] **MoPE-CLIP: Structured Pruning for Efficient Vision-Language Models with Module-wise Pruning Error Metric** CVPR 2024  
 Haokun Lin, Haoli Bai, **Zhili Liu**, Lu Hou, Muyi Sun, Linqi Song, Ying Wei, Zhenan Sun
- [12] **Mixed Autoencoder for Self-supervised Visual Representation Learning** CVPR 2023  
 Kai Chen\*, **Zhili Liu\***, Lanqing Hong, Hang Xu, Zhenguo Li, Dit-Yan Yeung.
- [13] **DiffFit: Unlocking Transferability of Large Diffusion Models via Simple Parameter-Efficient Fine-Tuning** ICCV 2023 **Oral**  
 Enze Xie, Lewei Yao, Han Shi, **Zhili Liu**, Daquan Zhou, Zhaoqiang Liu, Jiawei Li, Zhenguo Li

### 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 *EHSOD: CAM-Guided End-to-end Hybrid-Supervised Object Detection with Cascade Refinement*, 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