

Guodong DU

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RESEARCH INTEREST

- **Knowledge Enhancement:** Knowledge Fusion of LLMs and MLLMs.
- **Knowledge Efficiency:** Knowledge Distillation and Compression of LLMs and MLLMs.
- **Others:** Spiking Neural Network, Low Level Computer Vision.

EDUCATION

National University of Singapore (NUS) Master's degree program	Singapore <i>Aug.2018-Jun.2019</i>
University of Electronic Science and Technology of China (UESTC) Bachelor's degree program, GPA: 3.91/4.0, Rank: 12/550 (top 3%)	Chengdu, China <i>Aug.2014-Jun.2018</i>
City University of Hong kong (CityU) Non-degree Undergraduate Exchange, GPA:4.0/5.0	Hongkong, China <i>Aug.2016-Jan.2017</i>

SELECTED PUBLICATION

1. **Guodong Du**, Junlin Lee, Jing Li, Sim Kuan Goh, Ho-Kin Tang, Min Zhang.
Parameter Competition Balancing for Model Merging.
Conference on Neural Information Processing Systems (**NeurIPS 2024**).
2. **Guodong Du**, Jing Li, Sim Kuan Goh, Ho-Kin Tang.
Knowledge Fusion By Evolving Weights of Language Models.
Annual Meeting of the Association for Computational Linguistics (**ACL 2024 Findings**).
3. **Guodong Du**, Runhua Jiang, Sim Kuan Goh, Ho-Kin Tang.
Impacts of Darwinian Evolution on Pre-trained Deep Neural Networks.
Conference on Systems, Man, and Cybernetics (**IEEE SMC 2024**).

RESEARCH EXPERIENCE

Knowledge and Language Computing Lab, HITSZ <i>Research Assistant</i>	Supervisor: Prof. Jing Li <i>Dec.2023 - Sep.2024</i>
<ul style="list-style-type: none">• Knowledge fusion, editing and preference learning.• Multi-modality LLM knowledge fusion and decouple.	
Harbin Institute of Technology (Shenzhen) <i>Research Assistant</i>	Sponsor: Prof. Ho-kin Tang <i>Mar.2023 - Sep.2024</i>
<ul style="list-style-type: none">• Spiking neural network.• Heuristic algorithms, differential evolution.	
Learning and Vision Lab, ECE, NUS <i>Master, Part-time PhD</i>	Supervisor: Prof. Jiashi Feng <i>Aug.2018 - Sep.2021</i>
<ul style="list-style-type: none">• Low-level computer vision.• Efficient and lightweight model architecture.	

Huawei Noah's Ark Lab, Shenzhen, China

Research Intern

- Video super-resolution, optical flow.
- Lightweight image super-resolution.

Mentor: Xueyi Zou

Aug.2020 - Apr.2021

Huawei Singapore Research Center, Singapore

Research Intern

- Image super-resolution, rain streak removal.
- Image signal processing(ISP).

Leader: Michael Bi Mi

Aug.2019 - Aug.2020

WORK EXPERIENCE

BioMind, Singapore

Machine Learning Researcher

- Tumor image segmentation, biopsy detection.
- Face anti-spoofing, pose estimation.
- Clinical decision support system, video analysis for Pakinsen-plus.

Advisor: Prof. Jiashi Feng

Dec.2018 - Aug.2019

YoueData, Chengdu, China

Software Engineer

- Recommendation algorithms, collaborative filtering algorithms.
- Java development.

Advisor: Prof. Lixin Duan

Jan.2018 - Jun.2018

AWARDS AND CERTIFICATES

- 2021.10, 3rd Place Award in NTIRE 2021 Challenge on Video Super-resolution Track 1 Spatial. (New Trends in Image Restoration and Enhancement Workshop, CVPR2021);
- 2017.09, National Encouragement scholarship;
- 2016.05, Honorable Award in MCM (The Mathematical Contest in Modeling);
- 2016.09, National Encouragement scholarship;
- 2015.09, National scholarship;

ACADEMIC SERVICES

Conference Reviewer: ICLR 24-25, NeurIPS 23-24, ACL 24, etc.

Teaching Assistant: EE5907 Pattern Recognition (NUS ECE)