Lyu Tang, Ph.D

luckybird1994@gmail.com | (+86)13951912413
Github | Homepage | Google Scholar

Education

University of Chinese Academy of Sciences 2021 – 2025
Ph.D. in Computer Application Technology *China*

Nanjing University 2018 – 2021
M.Sc. in Computer Technology *China*

Southwest Jiaotong University 2014 – 2018
B.Sc. in Computer Science and Technology *China*

Research Interests

Foundation Model Based Image Segmentation 2023 – 2024
Open-world Segmentation

Salient Object Detection 2021 – 2024
Salient/Camouflaged Object and Image Matting

Video Compression 2021 – 2024

Academic Impact

Publications
29 *papers in CVPR, ICCV, ACMMM, AAAI, IJCAI, IJCV, T-IP, T-CSVT, T-OMM, etc.*

Citations
867 *citations on Google Scholar*

Reviewer
Serving as a reviewer for ICML, ICLR, AAAI, CVPR, ECCV, ICCV, ACMMM, NeurIPS, IJCV, T-IP, and T-CSVT

12-Selected Publications

Foundation Model Based Image Segmentation

1. Boosting Vision State Space Model with Fractal Scanning. (**AAAI2025 Oral**)
   H. Xiao, **LYU TANG**†, P. Jiang, H. Zhang, J. Chen, B. Li. (**Corresponding and Co-first author**)
2. ASAM: boosting segment anything model with adversarial tuning.(**CVPR2024**)
   B. Li, H. Xiao, and **LYU TANG**† (**Corresponding author**)
3. Towards training-free open-world segmentation via image prompting foundation models. (**IJCV2024**)
   LYU TANG, P. Jiang, H. Xiao, and B. Li

Salient and Camouflaged Object Detection

1. CoVP: Harnessing multimodal large language models for zero-shot camouflaged object detection.(**ACMMM2024**)
   LYU TANG, P.-T. Jiang, Z. Shen, H. Zhang, J. Chen, and B. Li
2. From composited to real-world: Transformer-based natural image matting. (**TCSVT2024**)
   Y. Wang, **LYU TANG**†, Y. Zhong, and B. Li (**Corresponding author**)
3. Toward stable co-saliency detection and object co-segmentation. (**TIP2022**)
   B. Li, **LYU TANG**†, S. Kuang, M. Song, and S. Ding (**Corresponding author**)

4. Re-thinking the relations in co-saliency detection. (**TCSVT2022**)
   LYU TANG, B. Li, S. Kuang, M. Song, and S. Ding
5. Detecting camouflaged object in frequency domain. (**CVPR2022**)
   Y. Zhong, B. Li, **LYU TANG**†, S. Kuang, S. Wu, and S. Ding (**Co-first and Corresponding author**)
6. DisenTANGled high quality salient object detection. (**ICCV2021**)
   LYU TANG, B. Li, Y. Zhong, S. Ding, and M. Song

Video Compression

1. UVC: An Unified Deep Video Compression Framework. (**TOMM2024**)
   LYU TANG, X. Zhang and L. Zhang
2. High Efficiency Deep-learning Based Video Compression. (**TOMM2024**)
   LYU TANG and X. Zhang
3. Scene Matters: Model-based Deep Video Compression.(**ICCV2023**)
   LYU TANG, X. Zhang, G. Zhang, and X. Ma

Self-summary

1. **Characteristics**: Highly self-motivated, aiming to achieve breakthrough scientific results.
2. **Academic Skills**: Proficient in English writing, familiar with Python and PyTorch framework.
3. **Collaboration**: Strong collaboration skills, leads a four-person academic team, and has guided two interns to publish high-quality papers.
4. **Future Plans**: Currently, my main research interests focus on **MLLM**. I am particularly keen on exploring how to enhance the performance of **MLLM** in a resource-friendly manner, and investigating the performance limits of **MLLM** in various tasks, with the goal of extending the performance boundaries of **MLLM**.