Yuxiang Lin

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Education

***Bachelor;* Shenzhen Technology University** 09/2020-06/2024

Major: The Internet of Things Engineering

Core courses: Computer Vision (94); Data Mining (88); Data Structure and Algorithms (90)

GPA: 85.3/100 (Ranks 15/137)

Research Interest

- Foundation Model
- Multi-modal Large Language Model (LLM)
- Self-Supervised Learning

Publications

(* denotes equal contribution)

[1] Wang, J*., **Lin, Y.***, Zhao, Q., Luo, D., Chen, S. Chen, W., Peng, X. Invisible Gas Detection: An RGB-Thermal Cross Attention Network and A New Benchmark. *Computer Vision and Image Understanding*. (JCR Q2) (Under Review)

[2] Cheng, Z., **Lin, Y.**, Chen, Z., Li, X., Mao, S., Zhang, F., Ding, D., Zhang, B., Peng, X. Semi-Supervised Multimodal Emotion Recognition with Expression MAE. In *Proceedings of the 31st ACM International Conference on Multimedia* (pp. 9436-9440). (ACM MM 2023)

[3] Cheng, Z., Niu, F., **Lin, Y.**, Peng, X., Zhang, B. MIPS at SemEval-2024 Task 3: Conversational Emotion-Cause Pair Analysis with Multimodal LLM. In *Proceedings of the 18th international workshop on semantic evaluation* (SemEval-2024).

[4] **Lin, Y.**, Peng, X., Yu, J., Chen, W., Wu, Y., & Liu, H. Real-time UAV Localization and Tracking in Multi-Weather Conditions using Multispectral Image Analysis. In *2023 IEEE International Conference on Real-time Computing and Robotics (RCAR)* (pp. 695-700). IEEE.

Internship & Research Experience

Multimodal Intelligent Perception System Lab (SZTU) 10/2022 - now

- Conducting cutting-edge research in multimodal (vision-speech-text) emotion recognition, achieving rank 2th at ACM MM 2023 grand challenge and rank 3th in SemEval, NAACL 2024.
- Investigating Chain of Thoughts Prompting in Multimodal LLM to enhance explainable emotion recognition.

Baidu Inc (Beijing) 01/2024-04/2024

- Work in topic of the representation learning for bridging the domain gap between pretrain-downstream tasks.
- Designed a hierarchical loss function for semantic-global-local unified representation learning.

Center for Research in Computer Vision (UCF, USA) 10/2023-01/2024

- Employed LoRA for fine-tuning a LLM (LLaVA), enabling it to discern open-world emotions arising from the interactions between humans and their environment..
- Developed a semi-auto data annotation pipeline for constructing emotion reasoning dataset with LLaVA and SAM.

Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences 02/2023-06/2023

- Contributed to real-world applications utilizing computer vision techniques, such as real-time object detection in thermal infrared images and RGB-thermal invisible gas leak detection.
- Implemented TCP/IP protocol for models-hardware communication, facilitating hardware device control.

Awards & Honors

- Second Prize of SZTU Freshman Scholarship (6000 CNY) 2020
- China Undergraduate Mathematical Contest in Modeling, National Second Prize (top 2%) 2022
- Dahua Outstanding Scholarship (4000 CNY) 2023
- OpenMMLab Contributor 2023
- First Prize of Research and Innovation Award (3000 CNY) 2024
- Star of Craftsmanship (3000 CNY) 2024