Yiyang Huang (He/Him/His)

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Education

Northeastern University, Boston, MA — Sep 2024 – Present
Ph.D. in Computer Engineering, advised by Prof. Yun Raymond Fu

Xidian University, Xi'an, China — Sep 2021 – Jun 2024
M.S. in Computer Science, advised by Prof. Xuefeng Liang

Xidian University, Xi'an, China — Sep 2017 – Jun 2021
B.Eng. in Intelligence Science and Technology

Research Interests

Multimodal LLMs | Efficiency | Reliability | Hallucination Detection & Mitigation | Video Understanding | Layout Understanding

Experience

Adobe Research, San Jose, CA — May 2025 – Nov 2025
Research Intern
Mentors: Zhaowen Wang, Simon Jenni, Jing Shi

- Designed and implemented MASON, a novel multimodal framework for compositional graphic design layout understanding, addressing the limitations of current VLMs in grasping complex element interactions.
- Conducted extensive experiments on large-scale datasets, achieving SOTA performance on layout comprehension benchmarks.
- *Outcome*: Paper submitted to CVPR 2026.

Kyoto University, Kyoto, Japan — Sep 2023 – Mar 2024
Research Student
Mentor: Prof. Takatsune Kumada

- Developed a bias-mitigation pipeline by integrating Chain-of-Thought reasoning with cognitive theory, enhancing the model's ability to infer emotion and intention in social interactions.
- Improved few-shot in-context learning performance, significantly reducing modal bias in multimodal LLMs.

Publications

Preprints and Under Review

- **Yiyang Huang**, Yitian Zhang, Yizhou Wang, Mingyuan Zhang, Liang Shi, Huimin Zeng, Yun Fu. "Distorted or Fabricated? A Survey on Hallucination in Video LLMs." *ARR under-review*.
- **Yiyang Huang**, Zhaowen Wang, Simon Jenni, Jing Shi, Yun Fu. "MASON: Compositional Design Layout Understanding in VLMs through Multimodal Alignment and Structural Perception." *CVPR under-review*.

Peer-Reviewed Publications

- **Yiyang Huang**, Liang Shi, Yitian Zhang, Yi Xu, Yun Fu. "SHIELD: Suppressing Hallucinations in LVLM Encoders via Bias and Vulnerability Defense." ***ICLR** 2026*. [Paper] [Code]
- **Yiyang Huang**, Yizhou Wang, Yun Fu. "D-CoDe: Scaling Image-Pretrained VLMs to Video via Dynamic Compression and Question Decomposition." ***EMNLP** 2025 (Main)*. [Paper] [Code]
- Shuai Zou, Xuefeng Liang, **Yiyang Huang**. "LipReading for Low-resource Languages by Language Dynamic LoRA." ***ICASSP** 2025*. [Paper]
- **Yiyang Huang**, Xuefeng Liang, Chaowei Fang. "CALLip: Lipreading using Contrastive and Attribute Learning." ***ACMMM** 2021*. [Paper]

Academic Service

Conference Reviewer: ARR, FG
Journal Reviewer: ACM Transactions on Knowledge Discovery from Data (TKDD)

Skills

Languages: Python, C++, MATLAB, LaTeX
Libraries: PyTorch, PyTorch Lightning, NumPy, Scikit-learn, Skimage

Awards

- Outstanding Student, Xidian University, 2022
- National Scholarship, China, 2021
- Undergraduate Computer Design Competition (1st Prize), China, 2021
- RoboMaster National Robotics Competition (2nd Prize), China, 2019
- ICRA AI Challenge (3rd Prize), 2019