

Yuanhuiyi Lyu

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Personal Profile

I'm now a research assistant supervised by **Dr. Addison L. Wang** at **HKUST**. I obtained my B.ENG in Artificial Intelligence from Northeastern University (**NEU**). My research interests include **Multi-modal learning**, **Embodied Vision**, and **3D Vision**.

Education

Northeastern University

Shenyang, China

Bachelor in Artificial Intelligence

Sept 2019 - June 2023

- GPA: **87.39/100**
- **Courses:** Object-Oriented Programming(C++) (**98**), Data Structure/Algorithm (**91**), Optimization Methods (**91**), Machine Learning (**95**), Linear Algebra (**88**), Probability Theory and Mathematical Statistics (**94**), Natural Language Processing (**85**), Computer Graphics (**90**)

Research Experience

VLIS Lab, Hong Kong University of Science and Technology

Guangzhou & Hong Kong

Research Assistant

June 2023 - present

- **Supervisor:** Addison L. Wang
- **Research Area:** Multi-modal Learning, Embodied Vision, 3D Vision.

NLP Lab, Tsinghua University

Beijing, China

Research Intern

Oct 2021 - Dec 2022

- **Supervisor:** Zhenghao Liu, Chenyan Xiong, Zhiyuan Liu
- **Research Area:** Multi-modal Learning, Information Retrieval.

NLP Lab, Northeastern University

Shenyang, China

Research Intern

June 2021 - Sept 2021

- **Supervisor:** Tong Xiao
- **Research Area:** Text Generation.

Publications

Chasing Day and Night: Towards Robust and Efficient All-Day Object Detection Guided by an Event Camera

Jiahang Cao, Xu Zheng*, **Yuanhuiyi Lyu***, Jiaxu Wang, Renjing Xu, Lin Wang

The 2024 IEEE International Conference on Robotics and Automation (**ICRA**) (2024). 2024

Image Anything: Towards Reasoning-coherent and Training-free Multi-modal Image Generation

Yuanhuiyi Lyu, Xu Zheng, Lin Wang

arXiv preprint arXiv:2401.17664 (2024). 2024

UniBind: LLM-Augmented Unified and Balanced Representation Space to Bind Them All

Yuanhuiyi Lyu, Xu Zheng, Jiazhou Zhou, Lin Wang

The IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**) (2024). 2024

ExACT: Language-guided Conceptual Reasoning and Uncertainty Estimation for Event-based Action Recognition and More

Jiazhou Zhou, Xu Zheng, **Yuanhuiyi Lyu**, Lin Wang

The IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**) (2024). 2024

Componerf: Text-guided multi-object compositional nerf with editable 3d scene layout

Haotian Bai, **Yuanhuiyi Lyu**, Lutao Jiang, Si Jia Li, Haonan Lu, Xiaodong Lin, Lin Wang

arXiv preprint arXiv:2303.13843 (2023). 2023

Universal Vision-Language Dense Retrieval: Learning A Unified Representation Space for Multi-Modal Retrieval

Zhenghao Liu, Chenyan Xiong, **Yuanhuiyi Lv**, Zhiyuan Liu, Ge Yu

The Eleventh International Conference on Learning Representations (**ICLR 2023**) (2023). 2023

E-CLIP: Towards Label-efficient Event-based Open-world Understanding by CLIP

Jiazhou Zhou*, Xu Zheng*, **Yuanhuiyi Lyu**, Lin Wang

arXiv preprint arXiv:2308.03135 (2023). 2023

Honors and Awards(Selected)

2023 **Outstanding Graduation Dissertation (<2%)**, Northeastern University

Shenyang, China

2022 **Outstanding Students Scholarship**, Northeastern University

Shenyang, China

2021 **Outstanding Students Scholarship**, Northeastern University

Shenyang, China

2020 **Outstanding Students Scholarship**, Northeastern University

Shenyang, China

References available upon request.