# Wenliang Zhong

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## EDUCATION

### University of Texas at Arlington

Arlington, TX

Ph.D in Computer Science supervised by Dr. Junzhou Huang; current GPA: 4.0/4.0

Aug 2021 - present

Jilin University

Jilin, China

B.S. in Computer Science and Technology; GPA: 3.6/4.0 (87.9/100)

Aug 2017 - Jun 2021

## RESEARCH INTERESTS

Instruction-Aware Models; Computer Vision; Multimodal Learning; (Multimodal) LLMs; Deep Graph Learning

# RECENT PUBLICATION (MORE IN GOOGLE SCHOLAR)

- Wenliang Zhong, Haiqing Li, Thao M. Dang, Feng Jiang, Hehuan Ma, Yuzhi Guo, Jean Gao, Junzhou Huang, "Learning from Guidelines: Structured Prompt Optimization for Expert Annotation Tasks", AAAI 2026
- Wenliang Zhong, Rob Barton, Weizhi An, Feng Jiang, Hehuan Ma, Yuzhi Guo, Abhishek Dan, Shioulin Sam, Karim Bouyarmane, Junzhou Huang, "Zero-Shot Composed Image Retrieval via Dual-Stream Instruction-Aware Distillation", ICCV 2025
- Wenliang Zhong, Weizhi An, Feng Jiang, Hehuan Ma, Yuzhi Guo, and Junzhou Huang, "Compositional Image Retrieval via Instruction-Aware Contrastive Learning", Preprint
- Wenliang Zhong, Wenyi Wu, Qi Li, Rob Barton, Boxin Du, Karim Bouyarmane, Shioulin Sam, Ismail Tutar, and Junzhou Huang, "Enhancing Multimodal Large Language Models with Multi-instance Visual Prompt Generator for Visual Representation Enrichment", SIGIR workshop on Multimodal Representation and Retrieval 2024
- Weizhi An, Wenliang Zhong, Feng Jiang, Hehuan Ma and Junzhou Huang, "Causal Subgraphs and Information Bottlenecks: Redefining OOD Robustness in Graph Neural Networks", ECCV 2024
- Qifeng Zhou, Wenliang Zhong, Yuzhi Guo, Michael Xiao, Hehuan Ma, and Junzhou Huang, "PathM3: A Multimodal Multi-Task Multiple Instance Learning Framework for Whole Slide Image Classification and Captioning", MICCAI 2024
- Wenyi Wu, Qi Li, **Wenliang Zhong**, Junzhou Huang, "MIVC: Multiple instance visual component for visual-language models", WACV 2024.
- Yucheng Shi\*, Hehuan Ma\*, **Wenliang Zhong\***, Qiaoyu Tan, Gengchen Mai, Xiang Li, Tianming Liu, Junzhou Huang, "Chatgraph: Interpretable text classification by converting chatgpt knowledge to graphs", ICDMW 2023

#### RECENT INDUSTRY EXPERIENCE

# Applied Scientist Intern in Amazon

May - Aug 2025

- **Topic**: Guideline-Driven Clustering LLM Agent
- Research Project: Developed an agentic system for e-commerce clustering based on instruction-aware embedding models
  and multomodal LLMs; Designed a novel MST-based algorithm that efficiently leveraging LLMs in clustering; Extended
  the framework to general image clustering tasks.
- **Publications**: Publish one paper for the internal AMLC and one paper in submission for an external conference.

## Applied Scientist Intern in Amazon

May - Aug 2024

- **Topic**: Instruction-Aware Embedding Models
- Research Project: Developped an instruction-aware embedding model based on multimodal LLMs for e-commerce items that unifying multiple modalities and following instructions. Designed a novel hard negative mining strategy for contrastive learning. Extended instruction-aware embedding models to public zero-shot composed image retrieval tasks by a novel distillation framework.
- Publications Publish one *oral* paper for the internal AMLC and one paper in ICCV 2025.

#### Honors and Awards

• Outstanding undergraduate thesis in Jilin University ( $\sim 5\%$ ), 2021