Wenbin An

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Shaanxi Key Laboratory of Big Data Knowledge Engineering Xi'an, Shaanxi, China

Education

Mar 2022 - Present	**Ph.D. Candidate, Control Science and Engineering** Xi'an Jiaotong University, Xi'an, China GPA: ***91.48/100***
Sep 2020 - Jan 2022	**M.Sc., Control Science and Engineering** Xi'an Jiaotong University, Xi'an, China GPA: ***91.91/100*** (***Rank 1/54***)
Sep 2016 - Jun 2020	**B.Eng., Information Engineering** Northwestern Polytechnical University, Xi'an, China GPA: ***89.30/100*** (***Rank 2/45, postgraduate recommendation***)

Research Interests

- **Natural Language Processing:** NLP Applications, Large Language Models
- **Open-world Learning:** Generalized Category Discovery
- **Weakly-supervised Learning:** Fine-grained Category Discovery
- **Multi-Modal Learning:** Visual Question Answering

Publications

1. **Wenbin An**, Feng Tian, Wenkai Shi, Yan Chen, Yaqiang Wu, Qianying Wang, Ping Chen. **Transfer and Alignment Network for Generalized Category Discovery**. The 38th Annual AAAI Conference on Artificial Intelligence (**AAAI 2024**) [Paper] [Code]
2. **Wenbin An**, Feng Tian, Qinghua Zheng, Wei Ding, Qianying Wang, Ping Chen. **Generalized category discovery with decoupled prototypical network**. The 37th Annual AAAI Conference on Artificial Intelligence (**AAAI 2023**) [Paper] [Code]
3. **Wenbin An**, Wenkai Shi, Feng Tian, Haonan Lin, QianYing Wang, Yaqiang Wu, mingxiang cai, Luyan Wang, Yan Chen, Haiping Zhu, Ping Chen. **Generalized Category Discovery with Large Language Models in the Loop**. The 62nd Annual Meeting of the Association for Computational Linguistics (**ACL 2024 Findings**)[Paper] [Code]
4. **Wenbin An**, Feng Tian, Wenkai Shi, Yan Chen, Qinghua Zheng, Qianying Wang, Ping Chen. **DNA: Denoised Neighborhood Aggregation for Fine-grained Category Discovery**. Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2023**) [Paper] [Code]
5. **Wenbin An**, Feng Tian, Ping Chen, Siliang Tang, Qinghua Zheng, QianYing Wang. **Fine-grained Category Discovery under Coarse-grained supervision with Hierarchical Weighted Self-contrastive Learning**. Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2022**) [Paper] [Code]

6. **Wenbin An**, Wenkai Shi, Feng Tian, Haonan Lin, QianYing Wang, Ping Chen. **DOWN: Dynamic Order Weighted Network for Fine-grained Category Discovery**. Knowledge-based Systems (**IF=8.8**) [Paper] [Code]
7. **Wenbin An**, Feng Tian, Ping Chen, Qinghua Zheng, Wei Ding. **New User Intent Discovery with Robust Pseudo Label Training and Source Domain Joint-training**. IEEE Intelligent Systems 2023 (**IF=6.4**) [Paper] [Code]
8. **Wenbin An**, Feng Tian, Ping Chen, Qinghua Zheng. **Aspect-based sentiment analysis with heterogeneous graph neural network**. IEEE Transactions on Computational Social Systems 2022 (**IF=5.0**). [Paper]
9. Wenkai Shi, **Wenbin An**, Feng Tian, Yan Chen, Yaqiang Wu, Qianying Wang, Ping Chen. **A Unified Knowledge Transfer Network for Generalized Category Discovery**. The 38th Annual AAAI Conference on Artificial Intelligence (**AAAI 2024**) [Code]
10. Wenkai Shi, **Wenbin An**, Feng Tian, Qinghua Zheng, QianYing Wang, Ping Chen. **A Diffusion Weighted Graph Framework for New Intent Discovery**. Proceedings of the 2023 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2023**). [Paper] [Code]
11. Haonan Lin, **Wenbin An**, Feng Tian, Yan Chen, QianYing Wang, Ping Chen. **Tri-Branch Framework with Prototype-Aware Matching for Universal Novel Category Discovery**. (**ICME 2024**) [Paper] [Code]

Papers under Review

1. **Wenbin An**, Feng Tian, Sicong Leng, Jiahao Nie, Haonan Lin, QianYing Wang, Guang Dai, Ping Chen, Shijian Lu. **AGLA: Mitigating Object Hallucinations in Large Vision-Language Models with Assembly of Global and Local Attention**. [Paper] [Code]
2. Haonan Lin, **Wenbin An**, Feng Tian, Yan Chen, QianYing Wang, Ping Chen. **Semantic-Enhanced Prototypical Network for Universal Novel Category Discovery**.
3. Jiahao Nie, Gongjie Zhang, **Wenbin An**, Yap-Peng Tan, Alex C Kot, Shijian Lu. **MMRel: A Relation Understanding Dataset and Benchmark in the MLLM Era**. [Paper] [Code]

Internship

Nov 2023 - Present **SGIT AI Lab**
Multi-modal Learning, Visual Question Answering

Awards

National Scholarship	2018
First-class Academic Scholarship	2017, 2018, 2019
Graduate Student First-class Academic Scholarship	2021
Outstanding Graduate Student	2021, 2023

Reviewer

1. **Conference:** NeurIPS, ACL, EMNLP, MM, ICME

2. **Journal:** TNNLS, PR, KBS, NCAA