Ning Liang-bo

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 Hong Kong, China

Education

Sep. 2023 – Present	**Ph.D.,** *Computing,*	**GPA:3.49/4.3**

The Hong Kong Polytechnic University (PolyU), Hong Kong, China
Supervisor: *Prof. Qing Li & Prof. Wenqi Fan*

Sep. 2020 – Jun. 2023	**M.E.,** *Control Science and Engineering,*	**GPA:88.00/100 or 3.75/4**

Northwestern Polytechnical University (NPU), Xi'an, China
Supervisor: *Prof. Zhun-ga Liu*

Sep. 2016 – Jun. 2020	**B.E.,** *Automation,*	**GPA:83.47/100 or 3.34/4**

Northwestern Polytechnical University (NPU), Xi'an, China

Publications (First Author)

2025

L. Ning, Z. Liang, Z. Jiang, et al., "A Survey of WebAgents: Towards Next-Generation AI Agents for Web Automation with Large Foundation Models." *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD '25)*, 2025. (**CCF-A, Online**)

L. Ning, W. Fan, Q. Li, "Exploring Backdoor Attack and Defense for LLM-empowered Recommendations." *arXiv*, 2025. (**Preprint**)

L. Ning, Z. Zhang, W. Ding, et al., "Multi-level Distribution Alignment for Multi-source Universal Domain Adaptation." *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, 2025. (**JCR:Q1, IF:10.2, Online**)

L. Ning, W. Fan, Q. Li, "Retrieval-Augmented Purifier for Robust LLM-Empowered Recommendation." *arXiv*, 2025. (**Preprint**)

2024

L. Ning, Z. Dai, W. Fan, et al., "Joint Universal Adversarial Perturbations with Interpretations," *arXiv*, 2024. (**Preprint**)

L. Ning, S. Wang, W. Fan, et al., "CheatAgent: Attacking LLM-Empowered Recommender Systems via LLM Agent," *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD '24)*, 2024. (**CCF-A, Online**)

L. Ning, Z. Dai, J. Su, et al., "Interpretation-Empowered Neural Cleanse for Backdoor Attacks," *The Web Conference (WWW '24)*, 2024. (**CCF-A, Online**)

2022

Z. Liu **(Master Supervisor)**, **L. Ning**, and Z. Zhang, "A New Progressive Multi-Source Domain Adaptation Network with Weighted Decision Fusion," *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, 2022. (**JCR:Q1, IF:10.2, Online**)

2021

L. Ning, Z. Liu, and Z. Zhang, "Domain Adaptation Based Multi-Source Data Fusion for Pattern Classification," *CIE International Conference on Radar (Radar)*, 2021. (**Online**)

Publications (Collaboration)

2025

Y. Zhang, H. Qu, **L. Ning**, et al. "SSD4Rec: a structured state space duality model for efficient sequential recommendation." *Transactions on Information Systems (TOIS)*, 2024. (**CCF-A, Online**)

Z. Zhang, Z. Liu, **L. Ning**, et al. "Belief-based fuzzy and imprecise clustering for arbitrary data distributions." *IEEE Transactions on Fuzzy Systems (TFS)*, 2025. (**JCR:Q1, IF:10.8, Online**)

Publications (Collaboration) (continued)

X. Yuan, **L. Ning**, W. Fan, and Q. Li. "mKG-RAG: Multimodal Knowledge Graph-Enhanced RAG for Visual Question Answering." *arXiv*, 2025. (**Preprint**)

J. Huang, S. Wang, **L. Ning**, et al., "Towards Next-Generation Recommender Systems: A Benchmark for Personalized Recommendation Assistant with LLMs." *ACM International Conference on Web Search and Data Mining (WSDM '25)*, 2025. (**CCF B, Online**)

2024   H. Qu, **L. Ning**, R. An, W. Fan, et al., "A Survey of Mamba," *arXiv*, 2024. (**Preprint**)

Y. Ding, W. Fan, **L. Ning**, et al., "A survey on RAG meets LLMs: Towards retrieval-augmented large language models," *ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD '24)*, 2024. (**CCF-A, Online**)

2023   Z. Zhang, Z. Liu, **L. Ning**, et al., "Representation of Imprecision in Deep Neural Networks for Image Classification," *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, 2022. (**JCR:Q1, IF:10.2, Online**)

Z. Zhang, **L. Ning**, Z. Liu, et al., "Mining and Reasoning of Data Uncertainty-induced Imprecision in Deep Image Classification," *Information Fusion*, 2023. (**JCR:Q1, IF:10.2, Online**)

2022   Z. Liu, Z. Zhang, Q. Pan, and **L. Ning**, "Unsupervised Change Detection From Heterogeneous Data Based on Image Translation," *IEEE Transactions on Geoscience and Remote Sensing (TGRS)*, vol. 60, pp. 1-13, 2022. (**JCR:Q1, IF:8.125, Online**)

Miscellaneous Experience

Awards and Achievements

2023   **Excellent Master's Thesis**, NPU, Xi'an, China.

Outstanding Graduates, NPU, Xi'an, China.

2022   **The National Scholarship**, Ministry of Education, China.

The First Prize Scholarship, NPU, Xi'an, China.

2019   **The Second Prize Scholarship**, NPU, Xi'an, China.

2018   **The First Prize Scholarship**, NPU, Xi'an, China.

The Endress+Hauser Scholarship, NPU, Xi'an, China.

2017   **The Second Prize Scholarship**, NPU, Xi'an, China.

Certifications

2020   **The First Prize of the 15-th National University Students Intelligent Car Race**.

2019   **The First Prize of the 14-th National University Students Intelligent Car Race**.

2018   **The Second Prize of the 13-th National University Students Intelligent Car Race**. Awarded by Intelligent Car Race Organization Committee.

Skills and Research Interests

Coding	Pytorch, Matlab, C/C++, LaTeX, Git.
Languages	Mandarin Chinese (Native), English (CET6, IELTS 6.5).
Res. Interests	Data Mining, WebAgents, Recommender Systems, Adversarial Attack, Domain Adaptation, Pattern Recognition, XAI.