Jianglin (Johnny) Lu

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RESEARCH INTERESTS

Machine Learning, Computer Vision, Natural Language Processing, Artificial Intelligence

EXPERIENCE

NEC Laboratories America, Part-Time, Remote   Jan 2026—Now

Mentors: Manmohan Chandraker, Vijay Kumar, Yi-Wen Chen

Research Scientist Intern: Video Reasoning, reinforcement learning, autonomous driving.

Amazon Web Services, Seattle, USA   May 2025—Aug 2025

Mentors: Hongcheng Wang, Yuanwei Wu, Ziyi Zhao

Applied Scientist Intern: Developed **an agentic system** for image restoration by fine-tuning a **VLM** to identify degradations, employing an **LLM** for restoration planning, and training **a reinforcement learning agent** to optimize tool execution sequences (**CVPR 2026**).

Adobe Research, San Jose, USA   Sep 2024—Jan 2025

Mentors: Simon Jenni, Kushal Kafle, Jing Shi

Research Scientist Intern: Proposed **a quality-controllable search framework** that trains an **LLM** for query refinement and integrates a **VLM** for text–image semantic matching, resulting in improved retrieval accuracy and **higher-quality recommendations (ICLR 2026)**.

Tencent Music Entertainment, Shenzhen, China   Nov 2020—Apr 2021

Mentors: Kwok-Wai Hung, Simon Lui

Research Intern: Proposed an **efficient asymmetric hashing** approach for **cross-modal and cross-domain** retrieval by learning an **adaptive bipartite graph** that models modality- and domain-level relationships, resulting in more accurate retrieval performance (**TCYB 2023**).

EDUCATION

Northeastern University, Boston, USA   Jan 2023 — Now

Ph.D. Candidate in Computer Engineering   Advisor: Prof. Yun Raymond Fu

INVITED TALKS

ACLab, Northeastern University, Boston, USA   26/02/2024

Content: Latent Graph Inference   Invited by: Prof. Sarah Ostadabbas

TEACHING

Northeastern University, Boston, USA

EECE7205 Fundamentals of Computer Engineering   Fall 2025

EECE5642 Data Visualization   Spring 2025

DS5220 Supervised Machine Learning   Summer 2023, Spring 2024

PROFESSIONAL SERVICES

Reviewer for
ICML, NeurIPS, ICLR, CVPR, ICCV, ECCV, AAAI, MM, KDD, ACL, EMNLP, AISTATS
IEEE Transactions on Pattern Analysis and Machine Intelligence
IEEE Transactions on Knowledge and Data Engineering
IEEE Transactions on Image Processing
IEEE Transactions on Neural Networks and Learning Systems
ACM Transactions on Knowledge Discovery from Data
International Journal of Machine Learning and Cybernetics
Pattern Recognition, Neural Networks, Multimedia Tools and Applications
Scientific Reports, Neurocomputing, Expert Systems With Applications

SELECTED
PUBLICATIONS

1. **Jianglin Lu**, Yuanwei Wu, Ziyi Zhao, Hongcheng Wang, Felix Jimenez, Abrar Majeedi, Yun Fu. SimpleCall: A Lightweight Image Restoration Agent in Label-Free Environments with MLLM Perceptual Feedback, The IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**) Findings, 2026.

2. **Jianglin Lu**, Simon Jenni, Kushal Kafle, Jing Shi, Handong Zhao, Yun Fu. Seeing Through Words: Controlling Visual Retrieval Quality with Language Models, The Fourteenth International Conference on Learning Representations (**ICLR**), 2026.

3. Qihua Dong, Yang Kuo, Ju Lin, Handong Zhao, Yitian Zhang, Yizhou Wang, Huimin Zeng, **Jianglin Lu**, Yun Fu. Ref-Adv: Exploring MLLM Visual Reasoning in Referring Expression Tasks, The Fourteenth International Conference on Learning Representations (**ICLR**), 2026.

4. **Jianglin Lu**, Hailing Wang, Kuo Yang, Yitian Zhang, Simon Jenni, Yun Fu. The Indra Representation Hypothesis for Multimodal Alignment, Thirty-Ninth Conference on Neural Information Processing Systems (**NeurIPS**), 2025.

5. **Jianglin Lu**, Yixuan Liu, Yitian Zhang, Yun Fu. Scale-Free Graph-Language Models, The Thirteenth International Conference on Learning Representations (**ICLR**), 2025.

6. Hailing Wang, **Jianglin Lu**, Yitian Zhang, Yun Fu. Outlier-Aware Post-Training Quantization for Image Super-Resolution, International Conference on Computer Vision (**ICCV**) **Highlight**, 2025.

7. **Jianglin Lu**, Hailing Wang, Yi Xu, Yizhou Wang, Kuo Yang, Yun Fu. Representation Potentials of Foundation Models for Multimodal Alignment: A Survey, The 2025 Conference on Empirical Methods in Natural Language Processing (**EMNLP**), 2025.

8. Yixuan Liu, Abel Elekes, **Jianglin Lu**, Rodrigo Dorantes-Gilardi, Albert-Laszlo Barabasi. Unequal Scientific Recognition in the Age of LLMs, The 2025 Conference on Empirical Methods in Natural Language Processing (**EMNLP**) Findings, 2025.

9. **Jianglin Lu**, Yi Xu, Huan Wang, Yue Bai, Yun Fu. Latent Graph Inference with Limited Supervision, Thirty-Seventh Conference on Neural Information Processing Systems (**NeurIPS**), 2023.

10. **Jianglin Lu**, Jie Zhou, Yudong Chen, Witold Pedrycz, Kwok-Wai Hung. Asymmetric Transfer Hashing with Adaptive Bipartite Graph Learning, IEEE Transactions on Cybernectics, 2023.

11. **Jianglin Lu**, Zhihui Lai, Hailing Wang, Yudong Chen, Jie Zhou, Linlin Shen. Generalized Embedding Regression: A Framework for Supervised Feature Extraction, IEEE Transactions on Neural Networks and Learning Systems, 2022.

12. **Jianglin Lu**, Hailing Wang, Jie Zhou, Mengfan Yan, Jiajun Wen. Deep Asymmetric Hashing with Dual Semantic Regression and Class Structure Quantization, Information Sciences, 2022.

13. Tao Wang, **Jianglin Lu**, Zhihui Lai, Jiajun Wen, Heng Kong. Uncertainty-Guided Pixel Contrastive Learning for Semi-Supervised Medical Image Segmentation, International Joint Conference on Artificial Intelligence (**IJCAI**), 2022.

14. **Jianglin Lu**, Hailing Wang, Jie Zhou, Yudong Chen, Zhihui Lai, Qinghua Hu. Low-Rank Adaptive Graph Embedding for Unsupervised Feature Extraction, Pattern Recognition, 2021.

15. **Jianglin Lu**, Jingxu Lin, Zhihui Lai, Hailing Wang, Jie Zhou. Target Redirected Regression with Dynamic Neighborhood Structure, Information Sciences, 2021.

16. Yudong Chen, Sen Wang, **Jianglin Lu**, Zhi Chen, Zheng Zhang, Zi Huang. Local Graph Convolutional Networks for Cross-Modal Hashing, ACM International Conference on Multimedia (**ACM MM**), 2021.

17. **Jianglin Lu**, Zhihui Lai, Jingxu Lin, Qinghong Lin, Jie Zhou. Label Self-Adaption Hashing for Image Retrieval, International Conference on Pattern Recognition (**ICPR**), 2020.

HONORS AND
AWARDS

Northeastern Outstanding PhD Teaching Award, 2025
ICCV Travel Award, 2025
ICLR Travel Award, 2025
NeurIPS Scholar Award, 2023
Northeastern PhD Network Travel Award, 2023, 2025
Second Prize of National Graduate Student Mathematical Modeling Competition, 2021 (Top 2%)
China National Scholarships, 2020 (1/400)