

# Yu Li

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## Education

**George Washington University**  
*Ph.D. in Electrical and Computer Engineering, GPA: 4.0/4.0*  
 Advisor: [Prof. Tian Lan](#) & [Prof. Zhengling Qi](#)

**Washington, D.C.**  
*Aug 2025 – Present*

**Wuhan University, Hongyi Honor College**  
*B.Eng. in Microelectronics Science and Technology, GPA: 3.87/4.0*  
 Advisor: [Prof. Cheng Lei](#)

**Wuhan, China**  
*Sept 2021 – Jun 2025*

## Research Interests

My research focuses on **LLM post-training** and **agent policy learning**, with specific interests in: (i) parameter-efficient fine-tuning (LoRA), (ii) preference alignment and reasoning for LLMs, (iii) agent reasoning, planning, and policy optimization.

## Publications

C=Conference, J=Journal, P=Preprint, †=Equal Contribution

**[C.1] Calibrating and Rotating: A Unified Framework for Weight Conditioning in PEFT**

D. Chang, P. Xue, **Y. Li et al.**

*The 40th Annual AAAI Conference on Artificial Intelligence (AAAI), 2026*

**[C.2] KG-SAM: Injecting Anatomical Knowledge into Segment Anything Models via Conditional Random Fields**

**Y. Li**, D. Chang, X. Xiao

*IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2026*

**[C.3] DLoRA-TrOCR: Mixed Text Mode Optical Character Recognition Based On Transformer**

**Y. Li**†, D. Chang†

*International Conference on Neural Information Processing (ICONIP), 2024*

**[C.4] ECG Classification with Dual Models: XGBoost Voting and Deep Learning with Attention**

**Y. Li**, Y. Hu, J. Chen, B. Wang, W. Liu et al.

*International Conference on Advanced Computer Technology and Electronics, 2023*

**[J.1] Dual branch SAM-Transformer Fusion Network for Accurate Breast Ultrasound Image Segmentation**

**Y. Li**, J. Huang, D. Wang, L. Mei, C. Lei et al.

*Medical Physics, 2025*

**[J.2] SfMDiffusion: Self-supervised Monocular Depth Estimation in Endoscopy Based on Diffusion Models**

**Y. Li**, D. Chang, J. Huang, D. Wang, L. Mei, C. Lei et al.

*International Journal of Computer Assisted Radiology and Surgery, 2025*

**[J.3] Local Optimum Time-Reassigned Synchrosqueezing Transform for Bearing Fault Diagnosis**

S. Lv, S. Zeng, **Y. Li et al.**

*IEEE Sensors Journal, 2024*

**[P.1] When Right Meets Wrong: Bilateral Context Conditioning with Reward-Confidence Correction for GRPO**

**Y. Li**, T. Lan, Z. Qi

*Under review by International Conference on Machine Learning (ICML), 2026*

**[P.2] Reason in Chains, Learn in Trees: Self-Rectification and Grafting for Multi-turn Agent Policy Optimization**

**Y. Li**, S. Tang, T. Lan

*Under review by Annual Meeting of the Association for Computational Linguistics (ACL), 2026*

**[P.3] INSPO: Unlocking Intrinsic Self-Reflection for LLM Preference Optimization**

**Y. Li**, T. Lan, Z. Qi

*Under review by International Conference on Machine Learning (ICML), 2026*

**[P.4] MultiRefine-V: Multi-Turn Reinforcement Learning for Enhancing Verilog Code Synthesis**

Q. Li, **Y. Li**, S. Hong, T. Lan, W. Cao

*Under review by Design Automation Conference (DAC), 2026*

**[P.5] CRAFT-LoRA: Content-Style Personalization via Rank-Constrained Adaptation and Training-Free Fusion**

**Y. Li**, Y. Cai, C. Zhang

*Under review by IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2026. Review: 5/4/2*

#### [P.6] **Prada: Black-Box LLM Adaptation with Private Data on Devices** ↗

Z. Wang, Y. He, Z. Shen, **Y. Li**, G. Sun, M. Lee, A. Li

*arXiv preprint, 2025*

### Selected Awards & Honors

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- **Innova International Exchange Scholarship**, 6 recipients university-wide, ¥70,000. 2024
- **Innova Excellence Scholarship**, Top 3%, ¥10,000, twice. 2023, 2024
- **First-Class Scholarship**, Top 5%, ¥3,000, three times. 2022, 2023, 2024

### Academic Services

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- **Conference Reviewer:** AAAI, ICASSP, CVPR, ICML
- **Journal Reviewer:** Neurocomputing, Frontiers in Oncology, IEEE Transactions on Networking

### Skills

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- **Languages:** English (TOEFL 110), Chinese (Native), Japanese (Basic)
- **ML/LLM Stack:** PyTorch, DeepSpeed, Flash Attention, vLLM, OpenRLHF, VERL, TRL
- **Tools & Platforms:** Linux/Ubuntu, Docker, Git, Weights & Biases, Cadence