

Yu Li

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Education

George Washington University
Ph.D. in Electrical and Computer Engineering

Washington, D.C.
Aug 2025 – Present

Wuhan University, Hongyi Honor College
B.Eng. in Microelectronics Science and Technology, GPA:3.87/4.0

Wuhan, China
Sept 2021 – Jun 2025

Research Experiences

Mobile Intelligence Lab [🔗](#), George Washington University
Topic: Post-training, RL, Reasoning. Advisor:*Prof. Tian Lan*

Washington, D.C.
August.2025 – Present

Artificial General Intelligence Lab [🔗](#), Westlake University
Topic: Generative AI. Advisor:*Prof. Chi Zhang*

Hangzhou, China
March.2025 – June.2025

Cyber-Physical Systems Lab [🔗](#), UC Irvine
Topic: Multimodal Uncertainty Fusion. Advisor:*Prof. Mohammad Al Faruque*

Irvine, CA
June.2024 – Oct.2024

Selected Projects

Unlocking Implicit Self-Reflection in Preference Optimization for LLM Alignment [🔗](#) *Jul. 2025 – Nov.2025*
Leveraging implicit preference information within preference pairs to establish a self-improvement mechanism, generalizing the theoretical foundation of existing preference optimization methods to enhance LLM alignment.

Aligning LLMs with Finite State Machine Logic for Multi-turn Verilog Code Generation *Sep. 2025 – Nov.2025*
Enabling LLMs to learn state transition logic of finite state machines through structured alignment, constructing a multi-turn generation paradigm for Verilog code synthesis.

CRAFT-LoRA: Content-Style Personalization via Rank-Constrained Adaptation *Apr. 2025 – Jul. 2025*
Enhancing content-style LoRA decomposition through rank-space constrained fine-tuning, and achieving personalized image generation via prompt mapping and asymmetric CFG for style-content LoRA fusion.

Prada: Black-Box LLM Adaptation with Private Data on Devices [🔗](#) *Jan. 2025 – Apr. 2025*
Achieving efficient black-box LLM adaptation on edge device systems through probability differential methods while robustly preserving data privacy.

Publications

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

[C.1] D. Chang, P. Xue, **Y. Li** et al. **Calibrating and Rotating: A Unified Framework for Weight Conditioning in PEFT**. *The 40th Annual AAAI Conference on Artificial Intelligence (AAAI)*, 2026.

[C.2] **Y. Li**†, D. Chang†. **DLoRA-TrOCR: Mixed Text Mode Optical Character Recognition Based On Transformer**. *International Conference on Neural Information Processing (ICONIP)*, 2024.

[C.3] **Y. Li**, Y. Hu, J. Chen et al. **ECG Classification with Dual Models: XGBoost Voting and Deep Learning with Attention**. *International Conference on Advanced Computer Technology and Electronics*, 2023.

[J.1] **Y. Li**, J. Huang et al. **Dual branch SAM-Transformer Fusion Network for Accurate Breast Ultrasound Image Segmentation**. *Medical Physics*, 2025.

[J.2] **Y. Li**, D. Chang et al. **SfMDiffusion: Self-supervised Monocular Depth Estimation in Endoscopy Based on Diffusion Models**. *International Journal of Computer Assisted Radiology and Surgery*, 2025.

[J.3] S. Lv, S. Zeng, **Y. Li** et al. **Local Optimum Time-Reassigned Synchrosqueezing Transform for Bearing Fault Diagnosis of Rotating Equipment**. *IEEE Sensors Journal*, 2024.

Honors & Scholarships

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

Skills

- **Languages:** English (TOEFL 110), Chinese (Native), Japanese (N5)
- **Programming:** Python, C/C++, Matlab, Verilog
- **Tools & Platforms:** Ubuntu, Docker, Pytorch, Tensorflow, Git, Cadence