

Yu Li

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Education

George Washington University <i>Ph.D. in Electrical and Computer Engineering</i>	Washington, D.C. <i>Aug 2025 – Present</i>
Wuhan University, Hongyi Honor College <i>B.Eng. in Microelectronics Science and Technology, GPA:3.87/4.0</i>	Wuhan, China <i>Sept 2021 – Jun 2025</i>

Research Experiences

Mobile Intelligence Lab 🌐, George Washington University Topic: Post-training, RL, Reasoning. <i>Advisor: Prof. Tian Lan</i>	Washington, D.C. <i>August 2025 – Present</i>
Artificial General Intelligence Lab 🌐, Westlake University Topic: Generative AI. <i>Advisor: Prof. Chi Zhang</i>	Hangzhou, China <i>March 2025 – June 2025</i>
Cyber-Physical Systems Lab 🌐, UC Irvine Topic: Multimodal Uncertainty Fusion. <i>Advisor: Prof. Mohammad Al Faruque</i>	Irvine, CA <i>June 2024 – Oct. 2024</i>

Selected Projects

Unlocking Implicit Self-Reflection in Preference Optimization for LLM Alignment 🌐 <i>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.</i>	<i>Jul. 2025 – Nov. 2025</i>
Aligning LLMs with Finite State Machine Logic for Multi-turn Verilog Code Generation <i>Enabling LLMs to learn state transition logic of finite state machines through structured alignment, constructing a multi-turn generation paradigm for Verilog code synthesis.</i>	<i>Sep. 2025 – Nov. 2025</i>
CRAFT-LoRA: Content-Style Personalization via Rank-Constrained Adaptation <i>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.</i>	<i>Apr. 2025 – Jul. 2025</i>
Prada: Black-Box LLM Adaptation with Private Data on Devices 🌐 <i>Achieving efficient black-box LLM adaptation on edge device systems through probability differential methods while robustly preserving data privacy.</i>	<i>Jan. 2025 – Apr. 2025</i>

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. <i>The 40th Annual AAAI Conference on Artificial Intelligence (AAAI), 2026.</i>
[C.2] Y. Li† , D. Chang†. DLoRA-TrOCR: Mixed Text Mode Optical Character Recognition Based On Transformer. <i>International Conference on Neural Information Processing (ICONIP), 2024.</i>
[C.3] Y. Li , Y. Hu, J. Chen <i>et al.</i> ECG Classification with Dual Models: XGBoost Voting and Deep Learning with Attention. <i>International Conference on Advanced Computer Technology and Electronics, 2023.</i>
[J.1] Y. Li , J. Huang <i>et al.</i> Dual branch SAM-Transformer Fusion Network for Accurate Breast Ultrasound Image Segmentation. <i>Medical Physics, 2025.</i>
[J.2] Y. Li , D. Chang <i>et al.</i> SfMDiffusion: Self-supervised Monocular Depth Estimation in Endoscopy Based on Diffusion Models. <i>International Journal of Computer Assisted Radiology and Surgery, 2025.</i>
[J.3] S. Lv, S. Zeng, Y. Li et al. Local Optimum Time-Reassigned Synchrosqueezing Transform for Bearing Fault Diagnosis of Rotating Equipment. <i>IEEE Sensors Journal, 2024.</i>

Honors & Scholarships

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

Skills

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