

Yu Li

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Education

Wuhan University, Hongyi Honor College <i>B.Eng. in Microelectronics Science and Technology, GPA:3.86/4.0</i>	Wuhan, China <i>Sept 2021 – Jun 2025</i>
University of California, Berkeley <i>Visiting Student in EECS Department</i>	Berkeley, CA <i>Jan 2024 – May 2024</i>

Research Experiences

Artificial General Intelligence Lab 🌐, Westlake University <i>Advisor: Prof. Chi Zhang, Topic: Generative AI Models</i>	Hangzhou, China <i>March 2025 – June. 2025</i>
Cyber-Physical Systems Lab 🌐, UC Irvine <i>Advisor: Prof. Mohammad Al Faruque, Topic: Multimodal Uncertainty Fusion</i>	Irvine, CA <i>May 2024 – Oct. 2024</i>
Ultrafast Imaging Lab 🌐, Wuhan University <i>Advisor: Prof. Cheng Lei, Topic: Medical Image Process</i>	Wuhan, China <i>Sept. 2023 – Jul. 2024</i>
Yang Research Lab 🌐, UC Davis <i>Advisor: Prof. Weijian Yang, Topic: Monte Carlo Simulation</i>	Davis, CA <i>Jun. 2023 – Oct. 2023</i>

Publications

C=Conference, J=Journal, S=In Submission, †=Equal Contribution

- [J.1] 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.
- [J.2] Y. Li, J. Huang *et al.* **Dual branch SAM-Transformer Fusion Network for Accurate Breast Ultrasound Image Segmentation.** *Medical Physics*, 2025.
- [J.3] 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.
- [C.1] Y. Li†, D. Chang†. **DLoRA-TrOCR: Mixed Text Mode Optical Character Recognition Based On Transformer.** In *International Conference on Neural Information Processing (ICONIP)*, 2024.
- [C.2] Y. Li, Y. Hu, J. Chen, B. Wang, and W. Liu. **ECG Classification with Dual Models: XGBoost Voting and Deep Learning with Attention.** In *ICACTE*, 2023.
- [S.1] Y. Li†, J. Wang†, P. Khargonekar, and M. A. A. Faruque. **Vision-Language Model-Guided Uncertainty-Aware Cross-Modal Sensor Fusion for Autonomous Vehicles.** Submitted to *ICCV* 2025.
- [S.2] D. Chang†, Y. Li†. **AlphaAdam: Asynchronous Masked Optimization with Dynamic Alpha for Selective Updates.** Submitted to *ICML* 2025.
- [S.3] Y. Li. **KG-SAM: Knowledge-Guided Clinical CRF Enhanced Segment Anything Model for Medical Image Segmentation.** Submitted to *MICCAI* 2025.
- [S.4] J. Huang, X. Li, and Y. Li. **Windowed Self-Attention Guided Multi-Scale Feature Stream Alignment Network for Ultrasound Image Segmentation.** Under Review in *Biomedical Signal Processing and Control*.
- [S.5] Z. Wang, Y. He, Z. Shen and Y. Li. **Prada: Black-Box LLM Adaptation with Private Data on Resource-Constrained Devices.** Submitted to *ACM MobiCom* 2025.

Patents

- [P.1] Y. Li. Energy-saving calculation method, energy-saving controller, terminal and medium for split air conditioner. China Invention Patent, CN202310099177.0, filed Jan 30, 2023, issued February 23, 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%, 3 times 2022, 2023, 2024
- **Academic Excellence Scholarship**, Top 5%, 3 times 2022, 2023, 2024

Skills

- **Languages:** English (TOEFL 110), Chinese (Native), Japanese (Basic)
- **Programming:** Python, C/C++, Matlab, Verilog
- **Tools & Platforms:** Ubuntu, FPGA, Docker, Git, Cadence, Vivado
- **Libraries:** Pytorch, Tensorflow, OpenCV, Scikit-learn