

YUSHU LI

🌐 <https://yushu-li.github.io> ✉ yushul@student.ubc.ca

Large Language Models | Reinforcement Learning | LLM Agents | Test-Time Adaptation

EDUCATION

The University of British Columbia

Ph.D. in Electrical and Computer Engineering (ECE)

- Supervised by Prof. Xiaoxiao Li

Vancouver, Canada

Sep. 2025 - Present

Vector Institute

PhD Student Researcher

- Supervised by Prof. Xiaoxiao Li

Toronto, Canada

Sep. 2025 - Present

South China University of Technology

Master of Information and Communication Engineering

- Supervised by Prof. Kui Jia, co-supervised by Dr. Xun Xu

Guangzhou, China

Sep. 2022 - Jun. 2025

South China University of Technology

Bachelor of Information Engineering (Elite Class)

Guangzhou, China

Sep. 2018 - Jun. 2022

PUBLICATIONS (* Contributed Equally)

- [1] **Yushu Li***, Wenlong Deng*, Jiajin Li, Xiaoxiao Li. "Spend Less, Reason Better: Budget-Aware Value Tree Search for LLM Agents", *arXiv preprint*, 2026.
- [2] Wenlong Deng*, **Yushu Li***, Boying Gong*, Yi Ren, Christos Thrampoulidis, Xiaoxiao Li. "On Group Relative Policy Optimization Collapse in Agent Search: The Lazy Likelihood-Displacement", **ICML**, 2026.
- [3] Beidi Zhao, Wenlong Deng, Xinting Liao, **Yushu Li**, Nazim Shaikh, Yao Nie, Xiaoxiao Li. "When RAG Hurts: Diagnosing and Mitigating Attention Distraction in Retrieval-Augmented LLMs", **ICML**, 2026.
- [4] Wenlong Deng, Jiaji Huang, Kaan Ozkara, **Yushu Li**, Christos Thrampoulidis, Xiaoxiao Li, Youngsuk Park. "Directional Alignment Mitigates Reward Hacking in Reinforcement Learning for Language Models", *ICML 2026 AIWild*, 2026.
- [5] Wenlong Deng, Yi Ren, **Yushu Li**, Boying Gong, Danica J. Sutherland, Xiaoxiao Li, Christos Thrampoulidis. "Token Hidden Reward: Steering Exploration-Exploitation in Group Relative Deep Reinforcement Learning", **ICLR**, 2026.
- [6] Tiankai Chen, **Yushu Li**, Adam Goodge, Tianrui Li, Fei Teng, Xulei Yang, Xun Xu. "Exploiting Vision Language Model for Training-Free 3D Point Cloud OOD Detection via Graph Score Propagation", **ICCV**, 2025.
- [7] **Yushu Li***, Yongyi Su*, Adam Goodge, Kui Jia, Xun Xu. "Efficient and Context-Aware Label Propagation for Zero-/Few-Shot Training-Free Adaptation of Vision-Language Model", **ICLR**, 2025.
- [8] Yongyi Su*, **Yushu Li***, Kui Jia, Chuan-Sheng Foo, Xun Xu. "On the Adversarial Risk of Test Time Adaptation: An Investigation into Realistic Test-Time Data Poisoning", **ICLR**, 2025.
- [9] **Yushu Li***, Yongyi Su*, Xulei Yang, Kui Jia, Xun Xu. "Exploring Human-in-the-Loop Test-Time Adaptation by Synergizing Active Learning and Model Selection", *Transactions on Machine Learning Research (TMLR)*, 2024.
- [10] **Yushu Li**, Xun Xu, Yongyi Su, Kui Jia. "On the Robustness of Open-World Test-Time Training: Self-Training with Dynamic Prototype Expansion", **ICCV Oral**, 2023.

INTERNSHIPS

Amazon Web Services

Cupertino, USA

Applied Scientist Intern

Jul. 2026 -

Institute for Infocomm Research (I2R), A*STAR

Singapore

Visiting Student

Mar. 2024 - Sep. 2024

PROFESSIONAL SERVICES

Reviewer: ACM MM, NeurIPS, ICLR, ICML, ICME, CVPR, TPAMI, TIP, TMLR

SELECTED AWARDS

Four Year Fellowship, The University of British Columbia

2025-2029

University-level Scholarship, South China University of Technology

2019-2025

SKILLS

Languages: Native Chinese Speaker, Fluent in English

Programming Languages: Python, PyTorch, C/C++, Matlab, L^AT_EX