LAM TRAN

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RESEARCH INTERESTS

My research focuses on machine learning models that emulate human learning, emphasizing generalizability, robustness to adversarial attacks, and the ability to learn continuously from multiple sources. Recently, I have been focusing on LLM/VLM safety, alignment and (continual) model unlearning.

EDUCATION

Ph.D. in Computer Science , University of Rochester **2025 - 2030 [expected]**

- Topics: Continual Learning, LLMs/VLMs safety.
- Advisor: Prof. Christopher Kanan.

M.S. in Data Science, Hanoi University of Science and Technology (HUST) **2021 - 2023**

- GPA: $3.83/4$
- Thesis: Continual Learning with Knowledge Distillation and Representation Learning.
- Advisor: Prof. Than Quang Khoat.

B.S. in Computer Science, Hanoi University of Science and Technology (HUST) **2017 - 2021**

- GPA: $3.56/4$
- Thesis: Continual Learning based on Node sparsity using Variational Dropout.
- Advisor: Dr. Linh Ngo Van.

EXPERIENCE

Research Resident at VinAI Research (now Qualcomm AI) **2022 - NOW**

- Worked on LLM safety/alignment and Unlearning.
- Studied task interaction in Continual Learning through the lens of Knowledge conflict, Invariant learning and Model Robustness. Also work on Multi-task learning and Robust contrastive learning.
- Participated in a Large Language Models Merging project.
- Advisors: Dr. Toan Tran & Prof. Trung Le.

Data Science Lab - SOICT, HUST **2020 - 2023**

- Applied Bayesian Inference methods, Probabilistic models, Knowledge Transfer to Continual Learning.
- Advisors: Dr. Khoat Than & Dr. Linh Ngo.

PUBLICATIONS

- Hoang Phan*, **Lam Tran***, Quyen Tran, Ngoc Tran, Nhat Ho, Dinh Phung, Trung Le. "Beyond Losses Reweighting: Empowering Multi-Task Learning via the Generalization Perspective". In *International Conference on Computer Vision, 2025* (**Highlight**).
- Hoang Phan, Sungmin Cha, **Lam Tran**, Qi Lei. "Toward a Holistic Approach to Continual Model Merging". In *ICCV 2025 Workshop CLVision*.
- Quyen Tran, **Lam Tran**, Khanh Doan, Khoat Than, Toan Tran, Dinh Phung, Trung Le. "Boosting Multiple Views for pretrained-based Continual Learning". In *International Conference on Learning Representations*, 2025.
- Anh The Nguyen, **Lam Tran**, Anh Tong, Tuan-Duy H. Nguyen, Toan Tran."CASUAL: Conditional Support Alignment for Domain Adaptation with Label Shift". In *Annual AAAI Conference on Artificial Intelligence*, 2025.
- Hoang Phan*, **Lam Tran***, Quyen Tran*, Trung Le, “Enhancing Domain Adaptation through Prompt Gradient Alignment”. In *Advances in Neural Information Processing Systems*, 2024.
- **Lam Tran**, Viet Nguyen, Phi Hoang, Khoat Than. "Sharpness and Gradient Aware Minimization for Memory-based Continual Learning". In *Symposium On Information and Communication Technology*, 2023.
- Quyen Tran*, **Lam Tran***, Linh Chu, Linh Ngo Khoat Than. "From Implicit to Explicit feedback: A deep neural network for modeling sequential behaviours and long-short term preferences of online users". In *Neurocomputing*, 2022.

PREPRINTS

- **Lam Tran**, Hoang Phan, Christopher Kanan, Trung Le. "RoNE: Robust Neurons Enable Internal Defenses Against Multimodal Jailbreak". Ongoing work.
- Ngoc N Tran*, **Lam Tran***, Hoang Phan, Anh Bui, Tung Pham, Toan Tran, Dinh Phung, Trung Le. "A Theoretical Guarantee for Robust Contrastive Learning". Under review.
- Quyen Tran, Hoang Phan, **Lam Tran**, Khoat Than, Toan Tran, Dinh Phung, Trung Le. "KOPPA: Improving Prompt-based Continual Learning with Key-Query Orthogonal Projection and Prototype-based One-Versus-All". Under review.
- Khanh Doan, Quyen Tran, **Lam Tran**, Tuan Nguyen, Dinh Phung, Trung Le. "Class-Prototype Conditional Diffusion Model with Gradient Projection for Continual Learning". Under review.

AWARDS & HONORS

- Best Paper Runner Up in The 12th International Symposium On Information and Communication Technology, 2023.
- Scholarship for Master and Doctoral training in Vietnam, Vingroup Innovation Foundation, 2021.
- Consolidation prize in Vietnamese Mathematical Olympiad competition, 2017.
- Bronze medal in International Tournament of Towns (ITOT), 2016.

SKILLS

- **Reviewer**: AAAI 2026.
- **Teaching:** Teaching assistant in Machine Learning classes at HUST and Vin Bigdata.
- **Languages & Technologies:** Python, C++, Pytorch, Numpy, Pandas, Flask, Matplotlib, Seaborn, SkLearn, Git.