

TRAN TUNG LAM

Address: Hanoi, Vietnam - Phone: 0968609009

tunglam1qddb@gmail.com Google scholar Github

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 model unlearning and model merging.

EDUCATION

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

2022 - NOW

- Study 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. Tran Minh Toan & Prof. Le Minh Trung.

Data Science Lab - SOICT, HUST

2020 - 2023

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

PUBLICATIONS

- 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

- 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.
- Hoang Phan*, **Lam Tran***, Ngoc Tran, Nhat Ho, Dinh Phung, Trung Le. "Improving Multi-task Learning via Seeking Task-based Flat Regions". Under review.
- Anh The Nguyen, **Lam Tran**, Anh Tong, Tuan-Duy H. Nguyen, Toan Tran. "CASUAL: Conditional Support Alignment for Domain Adaptation with Label Shift". Under review.
- Quyen Tran, **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.
- Gold medal in Math, The competition for Excellent Students of Major high schools in the Northern delta and Coastal areas, 2015.
- Math competition at Hung Vuong Summer Camp: Gold medal 2015, Silver medal 2016.

SKILLS

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