Quyen Tran

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Overview

My research primarily centers on Continual Learning, Transfer Learning, and Robust Machine Learning, with the goal of developing truly intelligent and reliable systems. These systems are expected to actively accumulate and consolidate knowledge over time while also being safe, private, and trustworthy.

Education

Hanoi University of Science and Technology (HUST)

Hanoi, Vietnam Aug 2017 – Nov 2021

B.Sc., Computer Science.

o GPA: 3.71/4.0 (Overall), 3.81/4.0 (Major)

o Top: 3/542, graduated with an Excellent Degree.

o Thesis: "On the Benefits of Lipschitz Continuity in Neural Networks".

Experience

VinAI Research
Research Resident

Hanoi, Vietnam
Apr 2025 - Present

• Advisors: Dinh Phung **Z**, Dat Quoc Nguyen **Z**,

o Research project: Hybrid Mamba-Transformer LLMs, with Dataset Distillation, RL alignment, etc.,.

VinAI Research
Research Resident

Hanoi, Vietnam
Aug 2022 – Mar 2025

o Advisors: Trung Le Z, Dinh Phung Z, Nhat Ho Z, Thien Nguyen Z.

o Main research topics: Continual Learning, Domain Adaptation, Robust machine learning.

Data Science Laboratory (HUST)

Hanoi, Vietnam

Research Assistant

Sep 2019 - Aug 2022

• Advisors: Khoat Than Z, Linh Ngo Z.

 $\circ\,$ Main research topics: Probabilistic inference, Recommendation systems.

Vingroup Big Data Institute

Teaching Assistant

Hanoi, Vietnam Aug 2021 - Oct 2021

o Machine Learning course.

Publications

1. Improving Generalization with Flat Hilbert Bayesian Inference

Tuan Truong*, Quyen Tran*, Quan Pham, Dinh Phung, Nhat Ho and Trung Le.

Proceeding of the Forty-Second International Conference on Machine Learning, 2025 (ICML)

2. Promoting Ensemble Diversity with Interactive Bayesian Distributional Robustness for Finetuning Foundation Models $\mbox{\ensuremath{\mathbb{Z}}}$

Quan Pham*, Tuan Truong*, **Quyen Tran***, Tan Nguyen, Dinh Phung and Trung Le. Proceeding of the Forty-Second International Conference on Machine Learning, 2025 (ICML)

3. Low-Rank Adaptation in Multilinear Operator Networks for Security-Preserving Incremental Learning ☑

Binh Ta, Duc Nguyen, **Quyen Tran**, Toan Tran, Tung Pham.

Proceeding of Conference on Computer Vision and Pattern Recognition, 2025 (CVPR)

4. Revisiting Prefix-tuning: Statistical Benefits of Reparameterization among Prompts & Minh Le, Chau Nguyen, Huy Nguyen, Quyen Tran, Trung Le and Nhat Ho.

Proceeding of the Thirteenth International Conference on Learning Representations, 2025 (ICLR)

5. Boosting Multiple Views for pretrained-based Continual Learning & Quyen Tran*, Lam Tran*, Khanh Doan, Toan Tran, Khoat Than, Dinh Phung and Trung Le. Proceeding of the Thirteenth International Conference on Learning Representations, 2025 (ICLR)

6. Mutual-pairing Data Augmentation for Fewshot Continual Relation Extraction

Anh Nguyen*, Quyen Tran*, Thanh Nguyen*, Diep Nguyen, Linh Ngo, Thien Nguyen and Trung Le. Proceedings of the 2025 Conference of the Nations of the Americas Chapter of the Association for Computational Linquistics (NAACL)

7. Few-Shot, No Problem: Descriptive Continual Relation Extraction

Thanh Nguyen*, Anh Le*, **Quyen Tran***, Thanh-Thien Le*, Linh Ngo, Thien Nguyen. Proceedings of the AAAI Conference on Artificial Intelligence, 2025 (AAAI).

8. Preserving Generalization of Language models in Few-shot Continual Relation Extraction Quyen Tran*, Thanh Nguyen*, Anh Nguyen*, Nam Le, Trung Le, Linh Ngo, Thien Nguyen.

Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP).

9. Enhancing Domain Adaptation through Prompt Gradient Alignment

Hoang Phan*, Lam Tran*, Quyen Tran* and Trung Le.

Proceedings of the Advances in Neural Information Processing Systems, 2024 (NeurIPS).

10. Lifelong Event Detection via Optimal Transport

Viet Dao*, Cuong Pham*, **Quyen Tran***, Thanh-Thien Le, Linh Ngo, Thien Nguyen.

Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP).

11. From Implicit to Explicit Feedback: A deep neural network for modeling sequential behaviors and long-short term preferences of online users

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Quyen Tran*, Lam Tran*, Linh Chu Hai, Ngo Van Linh, Khoat Than.

Neurocomputing 2022 (Neurocomputing, Q1 journal).

(*) denotes equal contribution

Honors and Awards

Vietnam's national university examination

June 2017

- Score: 29.25/30 (A combination Maths, Physics, Chemistry).
- \circ Top 0.1% out of 853,896 candidates.

Talent Scholarships for Undergraduates, HUST

2017 - 2021

- o Spring 2018, Fall 2018.
- o Spring 2019, Fall 2019.
- Spring 2020, Fall 2020.
- Spring 2021.

Professional Services

Reviewer at ICLR (2025), CVPR (2025), ACL (2025) and EMNLP(2025).

References

(random order)

1. Prof. Dinh Phung Z,

Full Professor, Monash University

2. Prof. Trung Le Z,

Assistant Professor, Monash University

3. Prof. Thien Nguyen Z,

Associate Professor, University of Oregon.

4. Prof. Nhat Ho ∠,

Assistant Professor, The University of Texas at Austin.

5. Dr. Dat Quoc Nguyen Z,

Principal Researcher, Qualcomm AI Research