Tuan M. Truong

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Education

University of British Columbia *Sept 2020 – May 2024*
BSc, Combined Honours in Mathematics and Computer Science
- GPA: 87.32% (4.1/4.33; A)

Honours/Awards

Bronze Medal, 59th International Mathematical Olympiad (IMO) *2018*
Second Prize, Vietnamese Mathematical Olympiad (VMO) *2018*
Third Prize, Vietnamese Mathematical Olympiad (VMO) *2017*
UBC Trek Excellence Scholarship for Continuing Students - $4000 *2023*
UBC Computer Science Scholarship - $1400 *2023*
UBC Faculty of Science International Student Scholarship - $7500 *2022, 2023*
First Runner-up, DENSO Factory Hacks Hackathon Challenge *2023*

Publications

(*) denotes equal contribution

• **T. Truong***, C. Nguyen*, H. Nguyen*, M. Le, N. Ho, and T. Le. RepLoRA: Reparameterizing Low-rank Adaptation via the Perspective of Mixture of Experts. *International Conference on Machine Learning (ICML)*, 2025.

• **T. Truong***, Q. Tran*, N. Q. Pham, N. Ho, D. Phung, T. Le. Improving Generalization with Flat Hilbert Bayesian Inference. *International Conference on Machine Learning (ICML)*, 2025.

• **T. Truong***, N. Q. Pham*, Q. Tran, T. Nguyen, D. Phung, and T. Le. Promoting Ensemble Diversity with Interactive Bayesian Distributional Robustness for Fine-tuning Foundation Models. *International Conference on Machine Learning (ICML)*, 2025.

• H. Luo, **T. Truong**, T. Pham, M. Harandi, D. Phung, T. Le. Explicit Eigenvalue Regularization Improves Sharpness-Aware Minimization. In *Advances in Neural Information Processing Systems (NeurIPS)*, 2024.

• C. Cameron, J. Hartford, T. Lundy, **T. Truong**, A. Milligan, R. Chen, K. Leyton-Brown. UNSAT Solver Synthesis via Monte Carlo Forest Search. In *International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR)*, pp. 170–189, 2024.

Research & Teaching Experience

Center for AI Research, VinUniversity *Hanoi, Vietnam*
AI Research Resident *Oct 2025 – Current*

Supervisor: Duy Nguyen (PhD Candidate at Max Planck Research School for Intelligent Systems & DFKI).
- Main research topic: Developing data-efficient vision-language-action (VLA) models for Robot Manipulation.

VinAI Research (now Qualcomm AI Research) *Hybrid*
Research Resident *Feb 2023 – Jul 2025*

Supervisor: Professors Trung Le (Monash University), Nhat Ho (UT Austin)
- Main research topic: developed robust and data-efficient Parameter-efficient Fine-tuning (PEFT) techniques for Large Foundation Models.
- Published four papers, accepted at ICML 2025 (3) and NeurIPS 2024 (1).
- Participated in an applied project with the SmartEdge team that builds the prompt-based open-set detection systems for VinHomes SmartCity apartments.

University of British Columbia *Vancouver, Canada*
Research Assistant *Apr 2022 – Dec 2022*

Supervisor: Professor Kevin Leyton-Brown
- Main research topic: developed boolean satisfiability solvers using reinforcement learning

- Co-authored the paper "UNSAT solver synthesis via Monte Carlo Forest Search" at CPAIOR 2024

Teaching Assistant *Jan 2023 - Apr 2023*

- Teaching Assistant for the course CPSC 340: Machine Learning and Data Mining

Grad Course Projects

CPSC533Y Visual Geometry with Deep Learning with Dr. Kwang Moo Yi *Winter 2023*

- Independently authored a short conference-style paper, *Point Cloud Reconstruction with Hyperspherical Neural Points*, under the supervision of Dr. Kwang Moo Yi, proposing a novel point cloud reconstruction method that integrates hyperspherical embeddings into Neural Points to improve reconstruction quality.
- Demonstrated that the proposed Hyper Neural Points method outperforms Neural Points and PU-Net on the Sketchfab2 dataset across three quantitative metrics (Chamfer Distance, Hausdorff Distance, and point-to-surface error), while also producing qualitatively smoother and more visually coherent reconstructions.

Professional Services

Reviewer at ICML (2024-2025), ICLR (2024-2026), CVPR (2024-2025).