

Dang Nguyen

CS PH.D. STUDENT

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Research interests

- Developing efficient and scalable machine-learning algorithms for large-scale datasets and architectures.
- Improving model robustness by addressing challenges such as distribution shift, label noise, data poisoning, and spurious correlations.

Education

University of California, Los Angeles

Ph.D. in Computer Science

California, USA

Sep. 2023 - Present

- Advised by Professor Baharan Mirzasoleiman
- UCLA Graduate Dean's Scholar Award

Toyo University

B.S. in Information Networking for Innovation and Design

Tokyo, Japan

Apr. 2017 - Mar. 2021

- Toyo Top Global Scholarship A
- GPA: 4.27/4.3, Top 1/300 in the faculty

Experience

VinAI

AI Resident

Hanoi, Vietnam

Oct. 2020 - Aug. 2023

- Main research topics: Optimal Transport and Model Fusion.
- Collaborated with Professor Nhat Ho (Department of Statistics and Data Sciences, University of Texas at Austin) and AI residents on multiple research projects about Optimal Transport and Model Fusion.
- Participated in an applied project which aims to improve the performance of object detectors in low-light conditions.
- Managed GPU resources for the VinAI Residency Program.

FPT Japan Holdings

Part-time Machine Learning Engineer

Yokohama, Japan

Oct. 2019 - Sep. 2020

- Participated in a long-term demand forecasting project for a chain pharmacy company in Japan.

Publications

(*) denotes equal contribution

1. K. Nguyen*, **D. Nguyen***, N. Ho. Self-Attention Amortized Distributional Projection Optimization for Sliced Wasserstein Point-Cloud Reconstruction. In Proceedings of the 40th International Conference on Machine Learning, 2023.
2. **D. Nguyen**, T. Nguyen, K. Nguyen, D. Phung, H. Bui, and N. Ho. On cross-layer alignment for model fusion of heterogeneous neural networks. In Proceedings of the 48th IEEE International Conference on Acoustics, Speech, and Signal Processing, 2023.
3. K. Nguyen*, **D. Nguyen***, T. A. V. Le, T. Pham, and N. Ho. Improving mini-batch optimal transport via partial transportation. In Proceedings of the 39th International Conference on Machine Learning, 2022.
4. K. Nguyen, **D. Nguyen**, Q. Nguyen, T. Pham, H. Bui, D. Phung, T. Le, and N. Ho. On transportation of mini-batches: A hierarchical approach. In Proceedings of the 39th International Conference on Machine Learning, 2022.

Submissions

(*) denotes equal contribution

1. X. Yihao, S. Joshi, D. Nguyen, and B. Mirzasoleiman. Understanding the Robustness of Multi-modal Contrastive Learning to Distribution Shift. Under review, 2023.

Professional services

- Reviewer at Conference on Neural Information Processing Systems (NeurIPS) 2022-2023
- Reviewer at the International Conference on Artificial Intelligence and Statistics (AISTATS) 2023-2024
- Reviewer at the International Conference on Machine Learning (ICML) 2023-2024
- Reviewer at the International Conference on Learning Representations (ICLR) 2024

Honors & Awards

INTERNATIONAL

2023	UCLA Graduate Dean’s Scholar Award , UCLA	California, USA
2017	Toyo Top Global Scholarship A , Toyo University	Tokyo, Japan
2015	Silver medal , 56th International Mathematical Olympiad	Chiang Mai, Thailand

DOMESTIC

2015	First Prize , Vietnam Mathematical Olympiad	Hanoi, Vietnam
2014	Second Prize , Vietnam Mathematical Olympiad	Hanoi, Vietnam

Extracurricular Activities

AI Day 2022	Hanoi, Vietnam
Poster presenter · Panel speaker	Aug. 2022

FPT Young Talents	Hanoi, Vietnam
Member	2015 - 2017

Technical skills

DevOps	Linux, Docker
Programming	Python, C/C++, MATLAB
Libraries	Pytorch, TensorFlow, NumPy, etc.

Languages

English	IELTS Overall 7.5: L 8, R 8, W 7.5, S 6.5
Japanese	JLPT N2
Vietnamese	Native