Quang-Huy (Percy) Nguyen

☞ Google Scholar

✓ nguyen.2959@osu.edu

quanghuy0497.github.io

in quanghuy0497

RESEARCH INTEREST

I am interested in *meta-learning*, *uncertainty estimation*, and *domain adaptation* for machine learning and computer vision. In particular, my research focuses on *learning with imperfect data* (e.g., limited, noisy, or imbalanced) under *minimal human supervision*, while enabling effective *extrapolation and adaptation to unseen domains* beyond the training set. Application-wise, I am working on *medical imaging* and *animal behavior analysis*, where handling limited data with minimal supervision is vital.

EDUCATION

Ph.D. in Computer Science and Engineering

2024 - Now

College of Engineering, The Ohio State University

- Research areas: medical imaging, animal behavior prediction, OOD detection, PEFT
- o Advisor: Prof. Wei-Lun (Harry) Chao

B.Eng. in Computer Engineering

2015 - 2020

University of Information Technology, Vietnam National University - Ho Chi Minh city

PREPRINTS AND PUBLICATIONS

- [1] Ping Zhang*, Zheda Mai*, Quang-Huy Nguyen, and Wei-Lun Chao. Revisiting semi-supervised learning in the era of foundation models. *NeurIPS*, 2025.
- [2] Zheda Mai, Ping Zhang, Cheng-Hao Tu, Hong-You Chen, Quang-Huy Nguyen, Li Zhang, and Wei-Lun Chao. Lessons learned from a unifying empirical study of parameter-efficient transfer learning (PETTL) in visual recognition. *CVPR*, 2025 (highlight, 2.98%).
- [3] Quang-Huy Nguyen*, Jin Zhou*, Zhenzhen Liu*, Khanh-Huyen Bui, Kilian Q. Weinberger, Wei-Lun Chao, and Dung D. Le. Detecting Out-of-Distribution Objects through Class-Conditioned Inpainting. preprint, 2025.
- [4] Minh-Duc Nguyen, Phuong M. Dinh, **Quang-Huy Nguyen**, Long P. Hoang, and Dung D. Le. Improving Pareto Set Learning for Expensive Multi-objective Optimization via Stein Variational Hypernetworks. **AAAI**, 2025.
- [5] Quang-Huy Nguyen, Cuong Q. Nguyen, Dung D. Le, and Hieu H. Pham. Enhancing Few-shot Image Classification with Cosine Transformer. *IEEE Access*, 2023.

RESEARCH EXPERIENCE

Graduate Research Assistant - CSE, The Ohio State University

Aug 2024 – Now Columbus, OH

Advised by: Prof. Wei-Lun (Harry) Chao

• Forecasting for animal behavior estimation

o Multi-sample learning for Pancreatic pre-cancer diagnostic

AI Research Resident - FPT Software AI Residency Program

Advised by: Prof. Dung D. Le

Aug 2023 – Jul 2024 Ho Chi Minh City, Vietnam

o Zero-shot Out-of-distribution with Generative Models

Research Assistant – CECS, VinUniversity

Advised by: Prof. Dung D. Le

Nov 2022 – Jul 2023 Ha Noi, Vietnam

o Pareto Front Learning for Expensive Multi-objective Optimization

Research Assistant - VinUni-Illinois Smart Health Center, VinUniversity

Advised by: Profs. Dung D. Le and Hieu H. Pham

Jan 2022 – Jun 2022 Ha Noi, Vietnam

• Few-shot learning for healthcare imaging

RESEARCH AND TECHNICAL SKILLS

- Research Domains: Machine Learning, Computer Vision, Deep Learning Optimization
- Research Interests: Generative Model, Domain Adaptation, Uncertainty Estimation, Bayesian Optimization
- Programming Languages: Python (primary)
- Frameworks & Technologies: PyTorch, TensorFlow, OpenCV, WandB, Bash, Git, Vim, IATEX
- Machine Learning Tools: NumPy, Pandas, SciPy, scikit-learn, Matplotlib, Einops, PyMOO