Quang-Huy (Percy) Nguyen

🎓 Google Scholar   ✉ quanghuy0497@gmail.com   🌐 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
  - **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] **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. **WACV**, 2026.

[2] Ping Zhang*, Zheda Mai*, **Quang-Huy Nguyen**, and Wei-Lun Chao. Revisiting semi-supervised learning in the era of foundation models. **NeurIPS**, 2025.

[3] 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%**).

[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
  Advised by: Prof. Wei-Lun (Harry) Chao   Columbus, OH
  - Forecasting for animal behavior estimation
  - Multi-sample learning for Pancreatic pre-cancer diagnostic

- **AI Research Resident – FPT Software AI Residency Program**   Aug 2023 – Jul 2024
  Advised by: Prof. Dung D. Le   Ho Chi Minh City, Vietnam
  - Zero-shot Out-of-distribution with Generative Models

- **Research Assistant – CECS, VinUniversity**   Nov 2022 – Jul 2023
  Advised by: Prof. Dung D. Le   Ha Noi, Vietnam
  - Pareto Front Learning for Expensive Multi-objective Optimization

- **Research Assistant – VinUni-Illinois Smart Health Center, VinUniversity**   Jan 2022 – Jun 2022
  Advised by: Profs. Dung D. Le and Hieu H. Pham   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

- **Research Skills**: Optimization, Visualization, Experimental Design, Statistical Analysis, Data Processing

- **Programming Languages**: Python (primary)

- **Frameworks & Technologies**: PyTorch, TensorFlow, OpenCV, WandB, Bash, Git, Vim, LaTeX

- **Machine Learning Tools**: NumPy, Pandas, SciPy, scikit-learn, Matplotlib, Einops, PyMOO