

Binh-Nguyen Nguyen

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EDUCATION

New Jersey Institute of Technology (NJIT) September 2025 - Present

Ph.D. Student in the Department of Data Science

Focus: LLMs, Post-Training (SFT & RL), Agentic Systems, Model Distillation, Safety, Privacy, Security.

VNU University of Engineering and Technology September 2021 - May 2025

Bachelor's Degree in Computer Science (Honors Program)

PUBLICATIONS

- [1] **B.-N. Nguyen**, K. Tran, N. Phan, and I. Khalil, "Gradient Transformer: Learning to Generate Updates for LLMs," in *Forty-third International Conference on Machine Learning (ICML)*, 2026.
- [2] A. Verma, **B.-N. Nguyen**, N. Phan, and L. Wang, "Logit Grafting: The Post-Training Delta is Sparse, Portable, and Powerful," in *ICML 2026 Workshop on Compositional Learning: Safety, Interpretability, and Agents*, 2026.
- [3] **B.-N. Nguyen** and Y. He, "Swift Cross-Dataset Pruning: Enhancing Fine-Tuning Efficiency in Natural Language Understanding," in *The 31st International Conference on Computational Linguistics (COLING)*, 2025.
- [4] B.-H. Tran, H.-M. Hoang, **B.-N. Nguyen**, D.-C. Can, and H.-Q. Le, "A multifaceted approach to drug-drug interaction extraction with fusion strategies," *Journal of Biomedical Informatics*, 2025.
- [5] **B.-N. Nguyen**, B.-H. Tran, D.-C. Can, T.-H. Do, and H.-Q. Le, "Improving Drug-Drug Interaction Extraction from Biomedical Literature Using Deep Multimodal Fusion," in *International Conference on the Development of Biomedical Engineering in Vietnam*, 2024.
- [6] **B.-N. Nguyen**, H.-Q. Le, and D.-C. Can, "Enhancing Clinical Note Generation from Doctor-Patient Conversations through Semantic Partition-Oriented Summarization," in *15th IEEE International Conference on Knowledge and Systems Engineering (KSE)*, 2023.
- [7] D.-C. Can, Q.-A. Nguyen, M.-Q. **B.-N. Nguyen**, K.-V. Nguyen, T.-H. Do, and H.-Q. Le, "UETCorn at MEDIQA-Sum 2023: Template-based Summarization for Clinical Note Generation from Doctor-Patient Conversation," in *Working Notes of CLEF*, 2023.

RESEARCH EXPERIENCE

Qualcomm | *Research Collaborator* Jan. 2026 – Present

- **Personalized Self-Improving Mobile Agents:** Developed a user intent prediction model from historical interaction data with test-time RL, and integrated it with GUI mobile agents for real-world deployment.

New Jersey Institute of Technology | *Research Assistant* Sep. 2025 – Present

- **Privacy-preserving Weak-to-Strong Distillation:** Developed GRAD-TRANSFORMER, a framework that transfers knowledge from Tiny LMs to LLMs while providing differential privacy guarantees for unshareable data.
- **Inference-Time Post-Training Transfer:** Co-developed LOGIT GRAFTING, a framework that transfers post-training capabilities across model scales and families via sparse logit deltas.

A*STAR Agency for Science, Technology and Research | *Research Intern* Jul. 2024 – Dec. 2024

- **Data Efficiency for LLMs:** Developed SCDP, a data selection framework that reduces post-training data for large language models by up to 80% while preserving downstream task performance.

VNU University of Engineering and Technology | *Research Assistant* Oct. 2022 – June 2024

- **LLM for Clinical Note Generation:** Developed a technique to automatically generate clinical notes from doctor-patient conversations, thereby assisting real-world medical treatment.
- **Multimodal Model for Drug-Drug Interaction Extraction:** Co-developed a multimodal model which processes and combines data from text, graph and image modals to enhance drug-drug interaction extraction.

TECHNICAL SKILLS

- **Machine Learning:** LLMs, VLMs, NLP, Diffusion Models, RL, Distillation, Federated Learning, Data.
- **Programming & Tools:** Python, C/C++, Java, CUDA, Linux, Bash, Git.
- **Frameworks:** Pytorch, Transformers, DeepSpeed, Accelerate, vllm, Pytorch Geometric, Opacus.

AWARDS AND HONORS

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| ◦ Excellent Graduation Thesis Award, University of Engineering and Technology, Vietnam National University, Hanoi | Jun. 2025 |
| ◦ First Prize of Scientific Research Contest 2024, Faculty of Information Technology, VNU-UET | Apr. 2024 |
| ◦ Singapore International Pre-Graduate Award – A*STAR Agency for Science, Technology and Research, Singapore | Feb. 2024 |
| ◦ Top 1 of Talent Category, Bosch Activator Scholarship | Dec. 2023 |
| ◦ Ranked 2nd at MEDIQA-Sum Shared Task at CLEF 2023 | May 2023 |
| ◦ 2022 POSCO Asia Fellowship | Nov. 2022 |
| ◦ Top 4 at Vietnam Youth Technopreneur Challenge 2021 | Apr. 2022 |

ACADEMIA EXPERIENCE

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| Teaching Assistant | <i>Newark, NJ, USA</i> |
| <i>New Jersey Institute of Technology</i> | <i>09/2025 - Present</i> |
| ◦ DS110: Basic Foundations of Artificial Intelligence (Fall 2025, Spring 2026) | |
| ◦ CS375: Introduction to Machine Learning (Fall 2025, Spring 2026) | |
| ◦ CS450: Data Visualization (Fall 2025) | |

PROFESSIONAL SERVICES

Conference Reviewer: ICML 2026, NeurIPS 2026.