# Duy Nguyen

## Research Interests

My research focuses on post-training methods for (multimodal) LLMs, including Reinforcement Learning from Human Feedback (RLHF) and Reinforcement Learning with Verifiable Rewards (RLVR). I am also interested in mechanistic interpretability and inference-time steering methods for LLM safety alignment.

### Education

#### The University of North Carolina at Chapel Hill

Aug. 2024 – Aug. 2029 (expected)

Ph.D. in Computer Science

Chapel Hill, NC, US

• Advisor: Prof. Mohit Bansal

#### Hanoi University of Science and Technology

Sep. 2018 - Sep. 2022

B.S. in Computer Science

Hanoi, Vietnam

• GPA: 3.65/4.00, graduated with Excellent Degree

#### **Publications**

Duy Nguyen, Archiki Prasad, Elias Stengel-Eskin, and Mohit Bansal. Multi-Attribute Steering of Language Models via Targeted Intervention. In Association for Computational Linguistics (ACL), 2025.

Ngoc Bui, **Duy Nguyen**, Man-Chung Yue, and Viet Anh Nguyen. Coverage-Validity-Aware Algorithmic Recourse. In Operations Research, 2024.

Hieu Nguyen\*, **Duy Nguyen**\*, Khoa Doan, and Viet Anh Nguyen. Cold-start Recommendation by Personalized Embedding Region Elicitation. In Conference on Uncertainty in Artificial Intelligence (UAI), 2024.

Duy Nguyen, Ngoc Bui, and Viet Anh Nguyen. Distributionally Robust Recourse Action. In International Conference on Learning Representations (ICLR), 2023.

Duy Nguyen, Ngoc Bui, and Viet Anh Nguyen. Feasible Recourse Plan via Diverse Interpolation. In International Conference on Artificial Intelligence and Statistics (AISTATS), 2023.

Ngoc Bui, **Duy Nguyen**, and Viet Anh Nguyen. Counterfactual Plans under Distributional Ambiguity. In International Conference on Learning Representations (ICLR), 2022.

Tuan-Duy H. Nguyen, Ngoc Bui, **Duy Nguyen**, Man-Chung Yue, and Viet Anh Nguyen. Robust Bayesian Recourse. In Conference on Uncertainty in Artificial Intelligence (UAI), 2022.

## **Preprints**

Duy Nguyen, Archiki Prasad, Elias Stengel-Eskin, and Mohit Bansal. GrAInS: Gradient-based Attribution for Inference-Time Steering of LLMs and VLMs. *Under Review*.

Duy Nguyen\*, Archiki Prasad\*, Elias Stengel-Eskin, and Mohit Bansal. LASeR: Learning to Adaptively Select Reward Models with Multi-Arm Bandits. Under Review.

Bao Nguyen, Binh Nguyen, **Duy Nguyen**, and Viet Anh Nguyen. Risk-Aware Distributional Intervention Policies for Language Models. Under Review.

Duy Nguyen, Bao Nguyen, and Viet Anh Nguyen. Cost Adaptive Recourse Recommendation by Adaptive Preference Elicitation. Under Review.

(\*) denotes equal contribution

# Experience

**Amazon Science** May 2025 - Aug. 2025 Seattle, WA, USA

Applied Scientist Intern

• Advisors: Dr. Daniel Marino, Dr. Xiang Cui

• Research topics: LLM reasoning for tabular data

VinAI Research Aug. 2022 - Aug. 2024 Hanoi, Vietnam

Research Resident

• Advisor: Prof. Viet Anh Nguyen

• Research topics: LLM safety, interpretability and explainability

Honors and Awards

Honorable Mention - Undergraduate Operations Research Prize Oct. 2022

*INFORMS* 

Best thesis presentation award Aug. 2022

School of Information and Communication Technology, HUST

Excellence Scholarship for the academic year Sep. 2019

School of Information and Communication Technology, HUST

Professional Academic Services

Reviewer at ICLR (2025), ICML (2025), NeurIPS (2023–2025), ACL Rolling Review (2025).