

Duong Minh Le

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📍 CODA Tech Square, Atlanta, GA, 30308 U.S.A.

RESEARCH INTEREST

Machine Learning, Natural Language Processing.

EDUCATION

Georgia Institute of Technology, Atlanta, GA

Ph.D. student in Computer Science

Aug. 2022 - Aug. 2027 (expected)

Advisors: Prof. Wei Xu, Prof. Alan Ritter

Hanoi University of Science and Technology, Hanoi, Vietnam

Bachelor of Science in Computer Science

Sep. 2015 - Aug. 2020

GPA: 3.72/4.00, graduate with excellent degree

RESEARCH AND WORKING EXPERIENCE

Graduate Research Assistant

Aug. 2022 - Present

Georgia Institute of Technology, Atlanta, GA

Advisors: Prof. Wei Xu, Prof. Alan Ritter

- Presented a new direction that leverages constrained decoding for the task of cross-lingual label projection.
- Studied the limitations of the dialogue agent in the task of recipe-grounded conversation. Proposed methods to mitigate the agent's most common issue - giving instructions in the incorrect order.

Research Engineer

May 2021 - May 2022

VinAI Research, Hanoi, Vietnam (vinai.io)

Supervisors: Dr. Tin Vo & Dr. Dat Quoc Nguyen

- Designed a text generation model which was able to generate replies given the customers' reviews.
- Developed a retrieval-based question-answering module for a Vietnamese speech-based question-answering system.
- Developed small deep learning models, which can fit in edge devices, to tackle the task of intent detection and slot filling.

AI Resident

Aug. 2019 - Apr. 2021

VinAI Research, Hanoi, Vietnam (vinai.io)

Mentor: Prof. Thien Huu Nguyen

- Proposed to explore the task of Fine-grained Event Trigger Detection. Introduced a new method to create a large and high-quality dataset for the task with minimal human effort.
- Designed new algorithms to improve the performance of deep learning models for NLP tasks: Event Factuality Prediction, Metaphor Detection.

PUBLICATIONS

Duong Minh Le, Yang Chen, Alan Ritter, Wei Xu. *Constrained Decoding for Cross-lingual Label Projection*. In Proceedings of the Twelfth International Conference on Learning Representations (ICLR 2024).

Duong Minh Le, Ruohao Guo, Wei Xu, Alan Ritter. *Improved Instruction Ordering in Recipe-Grounded Conversation*. In Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL 2023).

Marcus Ma, **Duong Minh Le**, Junmo Kang, Yao Dou, John Cadigan, Dayne Freitag, Alan Ritter, Wei Xu *CROSSNEWS: A Cross-Genre Authorship Verification and Attribution Benchmark*. In Proceedings of The Thirty-Ninth AAAI Conference on Artificial Intelligence (AAAI 2025).

Andrew Li, Zhenduo Wang, Ethan Mendes, **Duong Minh Le**, Wei Xu, Alan Ritter. *ChatHF: Collecting Rich Human Feedback from Real-time Conversations*. In EMNLP 2024 (Demo).

Nguyen Luong Tran, **Duong Minh Le**, Dat Quoc Nguyen. *BARTpho: Pre-trained Sequence-to-Sequence Models for Vietnamese*. In Proceedings of the 23rd Annual Conference of the International Speech Communication Association (INTERSPEECH 2022).

Tin Duy Vo, Manh Tien Luong, **Duong Minh Le**, Hieu Minh Tran, Nhan Tri Do, Duy Nguyen, Thien Hai Nguyen, Hung Hai Bui, Dat Quoc Nguyen, Dinh Quoc Phung. *Vietnamese Speech-based Question Answering over Car Manuals*. In NeurIPS Data-Centric AI Workshop 2021.

Duong Minh Le, Thien Huu Nguyen. *Does It Happen? Multi-hop Path Structures for Event Factuality Prediction with Graph Transformer Networks*. In Proceedings of the 7th Workshop on Noisy User-generated Text (W-NUT 2021) at EMNLP 2021 (**Best paper runner-up**).

Duong Minh Le, Thien Huu Nguyen. *Fine-Grained Event Trigger Detection*. In Proceedings of 16th Conference of the European Chapter of the Association for Computational Linguistics (EACL 2021), April 2021.

Duong Minh Le, My Thai and Thien Huu Nguyen. *Multi-task Learning for Metaphor Detection with Graph Convolutional Neural Networks and Word Sense Disambiguation*. In Proceedings of The Thirty-Fourth AAAI Conference on Artificial Intelligence, New York, USA, 2020.

TECHNICAL SKILLS

Languages: Python, C/C++

Libraries: Pytorch, Numpy, Matplotlib

Developer Tools: Git

ACTIVITIES

Technical talk at AI DAY 2020

Title: *Multi-task Learning for Metaphor Detection with Graph Convolutional Neural Networks and Word Sense Disambiguation*.

Link: shorturl.at/oGUX8