

Le Nhut Nam

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*"Complete disorder is impossible." — Theodore S. Motzkin,
Israeli-American mathematician, 1908 - 1970*

Education

Graduated.....

University of Science, Viet Nam National University HCM City **12/2023 – present**

Faculty of Mathematics and Computer Science

Master of Science student

Major in Applied Mathematics.

Research areas: Optimization algorithms, Mathematical Programming, Graph algorithms

University of Science, Viet Nam National University HCM City **12/2022 – present**

Faculty of Information Technology - Department of Computer Science

Master of Science student

Major in Computer Science.

Research areas: Multi-relational graph, Machine learning, Optimization algorithms, Graph algorithms.

Thesis title: Temporal knowledge graph reasoning based on reinforcement learning

Undergraduate.....

University of Science, Viet Nam National University HCM City **09/2018 – 09/2022**

Faculty of Information Technology - Department of Computer Science

Bachelor of Science degree

Major in Computer Science.

Research areas: Knowledge graphs, Machine learning

Thesis title: Link Prediction on Knowledge Graphs based-on Convolutional Neural Networks.

High school.....

Hoang Le Kha High School For The Gifted, Vietnam. **06/2015-06/2018**

Graduated: good highschool diploma

Publications and preprints

- Knowledge graph embedding by relational rotation and complex convolution for link prediction.

T. Le, N. Le and B. Le, *Expert Systems with Applications*, 2023, **214**, 119122..

- Embedding Model with Attention over Convolution Kernels and Dynamic Mapping Matrix for Link Prediction.

T. Le, N. Le and B. Le, *Asian Conference on Intelligent Information and Database Systems*, 2022, pp. 234–246.

Technical skills

Programming experience.....

Python, C/C++, Julia, Java, CUDA

Machine learning framework.....

Pytorch, Tensorflow

Tool chains.....

Git, \LaTeX , Conda, Docker, Jupyter, JetBrains

Operating system.....

Arch Linux (on DWM), Ubuntu

Selected projects

A study on graph partition algorithms.....

Graph partition is the process of dividing a graph into multiple subgraphs or partition partitions, such that each subgraph is connected and has a certain desirable algorithms property, such as balanced size or minimal cut size. Although it is a challenging problem, finding a partition that makes graph analysis easier has applications in scientific computing. In this project, we provide a Python programming language implementation for a few well-known graph partitioning techniques. Public source code on Github.

Google AI4Code Understand Code.....

Understand in Python notebooks the relationship between code and comments using language models: codebert, graphcodebert and optimization techniques in Python (gradient accumulation, automatic mixed precision training, 8-bit Optimizers - 8- Notebooks bit Adam/AdamW Optimizer and fast tokenizers). Public source code at Github

Selected work experience

Industry internships.....

DIGIME PTE. LTD: AI Developer 03/2023 – 12/2023

Working on digital image-video processing, object detection tasks with YOLO models.

Academic teaching.....

FIT-HCMUS, VNU-HCMC: Visiting Lecturer 09/2022 – present

Was **Visiting Lecturer** in Faculty of Information Technology, VNUHCMC - University of Science. Instructed in laboratory for Parallel Programming, Graph Mining, Introduction to Data Science, Programming for Data Science, Introduction to Machine Learning, and Data Visualization.

Academic research working.....

DoCS, FIT-HCMUS, VNU-HCMC: Graduated Research Student 01/2023 – present

Supervised by **Prof. PhD. Le Hoai Bac** on research topic of temporal knowledge graphs reasoning.

DoCS, FIT-HCMUS, VNU-HCMC: Undergraduated Research Student 06/2021 – 07/2022

Advised by **MS.c Le Ngoc Thanh** on research topic of link prediction on knowledge graphs.

More.....

VIASM: Winter school: Game theory & Combinatorial optimization 05/12/2023 – 06/12/2023

Was **participant** in Winter school of Game theory & Combinatorial optimization hosted by VIASM, HCMUS, & HaNoi University of science and technology

HUST: Modern Machine Learning: Foundations and Applications 11/09/2023 – 15/09/2023

Was **participant** in Summer school of Modern Machine Learning: Foundations and Applications – MML hosted by HaNoi University of science and technology, VINBIGDATA, and NAVER

VMC: 10th Vietnam Mathematical Congression 2023 08/08/2023 – 12/08/2023

Was **participant** in 10th Vietnam Mathematical Congression 2023.

Miscellanea

- Vietnamese: Native speaker
- English: Intermediate level (5.5 Overall IELTS); written in English, publications and presentations are in English.