# **LE THANH THIEN**

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#### **EDUCATION**

#### Hanoi University of Science and Technology, Hanoi

Aug 2019 – Aug 2023

Bachelor of Science in Computer Science, Distinction equivalent

Achievements Talent Scholarship 2019 (merit-based, value of 1,300 USD)

• Thesis Parameter-efficient Continual Relation Extraction, combining generative replay with a novel

multi-objective optimization method for competitive Continual Relation Extraction (GPA 4.0)

• **Projects** Volatility Prediction for Vietnam Stock Market ☑, benchmarking ARCH, GARCH, SVM, and

Multi-Layer Perceptron on VNINDEX and VN30INDEX

**Data Platform for Financial Market** □, building big data pipeline for the financial market

**Bird Classification**, training ResNet models, resulting in accuracy of over 90%

Image Captioning ☑, building and training Show and Tell model using CNNs and LSTMs

Modules Artificial Intelligence (GPA 4.0), Computer Architecture (GPA 4.0), Data Science (GPA 4.0),

Evolutionary Computing (GPA 4.0), Information Retrieval (GPA 4.0), Linear Algebra (GPA 4.0),

Machine Learning and Data Mining (GPA 4.0), Programming Techniques (GPA 4.0)

### VNU.HCM High School for the Gifted, Ho Chi Minh city

Aug 2016 – May 2019

High School Diploma (GPA 9.7)

• Achievements Odon Vallet Scholarship 2019, value of 430 USD, from Rencontres Du Vietnam

#### **EXPERIENCE**

## VinAl Research, Hanoi | Al Research Resident

Feb 2023 - Present

Top 20 global company for leading AI research in 2022

- Research cross-lingual information extraction
- Conduct studies on continual learning in information extraction, resulting in 3 papers
- Research problems related to Large Language Models, resulting in 1 paper
- Collect and preprocess data to train chat Large Language Model for Vietnamese language
- Trained and benchmarked Automatic Speech Recognition models on public/private data for Vietnamese language

## VND Credit, Hanoi | Data Science Engineer

Jul 2022 – Feb 2023

P2P lending platform

- Wrote, trained, and deployed API for job-matching model in JOBO job recommendation system
- Gathered and standardized data on job opportunities for training AI models extracting useful information from job description, achieving precision and recall of over 90%
- Collaborated with 6 engineers and 3 interns to build graph neural networks for credit scoring from mobile-usage data

#### **HUST Data Science Lab (BKAI)**, Hanoi | **Research Student**

Apr 2020 – Aug 2023

Affiliated with NAVER – most-used search portal in South Korea

- Researched deep generative models (e.g. GANs, Diffusion Models) and theoretical generalization for deep neural networks, led by Assoc. Prof. Than Quang Khoat
- Conducted project "Deep learning for imbalanced data", designing architectures and training paradigms for deep neural networks to enhance performances on skewed and long-tailed data

## **ACHIEVEMENTS**

#### Physics Unlimited Explorer Competition (PUEC) | Honorable Mention

2018

International Physics competition originated from Princeton University

• Track: Statistical Mechanics

## Vietnam Physics Olympiad (VPhO) | Second Prize

2019

Most prestigious Physics competition for high school students in Vietnam.

• Top < 0.05% of nationwide high-school students in 2018-2019 school year

AI Development competition for nationwide students

• Track: Spoken Language Understanding

# **PUBLICATIONS** Asterisk (\*) denotes equal contribution

## **Continual Relation Extraction via Sequential Multi-Task Learning**

Thanh-Thien Le\*, Manh Nguyen\*, Tung Thanh Nguyen\*, Linh Van Ngo and Thien Huu Nguyen, AAAI 2024, Vancouver, Canada

## SharpSeq: Empowering Continual Event Detection through Sharpness-Aware Sequential-task

Thanh-Thien Le\*, Viet Dao\*, Linh Van Nguyen\*, Thi-Nhung Nguyen, Linh Van Ngo and Thien Huu Nguyen, NAACL 2024, St. Julian's, Malta

#### **Realistic Evaluation of Toxicity in Large Language Models**

Tinh Son Luong\*, Thanh-Thien Le\*, Linh Van Ngo and Thien Huu Nguyen, ACL 2024, St. Julian's, Malta

#### **PhoWhisper: Automatic Speech Recognition for Vietnamese**

Thanh-Thien Le, Linh The Nguyen, Dat Quoc Nguyen, Tiny Paper @ ICLR 2024, Vienna, Austria

#### **ToVo: Toxicity Taxonomy via Voting**

Tinh Son Luong\*, Thanh-Thien Le\*, Thang Viet Doan\*, Linh Ngo Van, Thien Huu Nguyen and Diep Thi-Ngoc Nguyen, under review

#### **Lifelong Event Detection via Optimal Transport**

Viet Dao\*, Van-Cuong Pham\*, Quyen Tran\*, Thanh-Thien Le\*, Linh Ngo Van, Thien Huu, under review

#### Few-Shot, No Problem: Descriptive Continual Relation Extraction

Thanh Nguyen\*, Anh Duc Le\*, Quyen Tran\*, Thanh-Thien Le\*, Linh Ngo Van, Thien Huu, under review

### Adaptive Prompting for Continual Relation Extraction: A Within-Task Variance Perspective

Minh Le, Tien Ngoc Luu, An Nguyen The, Thanh-Thien Le, Thien Trang Nguyen Vu, Tung Thanh Nguyen, Linh Van Ngo and Thien Huu Nguyen, *under review* 

## **SKILLS**

•	Programming	Python (NumPy, pandas, Matplotlib, PyTorch, PySpark, Hugging Face Transformers), C++
•	<b>Machine Learning</b>	Linear Regression, K-Means, SVMs, KNN, Probabilistic Models, DNNs, GNNs, LLMs
•	Mathematics	Calculus, Linear Algebra, Probability and Statistics, Optimization, Discrete Mathematics
•	Languages	English (Fluent), Vietnamese (Native)

#### **REFERENCES**

Asst. Prof. Thien Huu Nguyen	thien@cs.oregon.edu   https://ix.cs.uoregon.edu/~thien/
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