

Khien H. Le, B.Sc.

Date of birth: 28-01-1999 Address: Hanoi, Vietnam

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EDUCATION

B.Sc., Mathematics and Computer Science

Sep 2017 - Sep 2021

Vietnam National University - University of Science (VNUHCM-US)

Thesis: [Multi-Source Transfer Learning For Sentiment Classification](#) - GPA: 7.0/10.0

RESEARCH EXPERIENCE

Research Assistant

Jan 2023 - Present

[Information Security Lab](#)

VinUniversity

- *Federated Learning and Internet of Things*
Conduct extensive experiments on a large network of IoT devices in an experimental study to understand the behaviors of Federated Learning algorithms in real-world settings.
- *Federated Domain Generalization*
Develop an efficient Federated Learning algorithm to comprehensively distill domain-invariant representation, enabling the global model robust to data distribution shift.

Research Assistant

Jan 2022 - Dec 2022

[VinUni-Illinois Smart Health Center](#)

VinUniversity

- *ECG-Based Arrhythmia Detection*
Develop an accurate, lightweight, and explainable Deep Learning system to identify abnormal heart rhythms based on reduced-lead electrocardiograms.

Research Intern

Oct 2020 - Dec 2021

[Smart Health Center](#)

Vingroup Big Data Institute

- *Abnormality Detection on Chest Radiographs*
Design a training strategy to take advantage of the existence of annotations from multiple experts to improve the performance of thoracic abnormalities detection on chest radiographs.

Research Intern

Jan 2020 - Sep 2020

[Artificial Intelligence Solution for Industrial Applications Research Lab](#)

VNUHCM-US

- *Vietnamese Natural Language Processing*
Propose a Mixture-of-Experts mechanism to take advantage of multiple pre-trained language models to tackle the shortage of available annotated data for the Vietnamese sentiment classification task.

RESEARCH PUBLICATIONS

Khien Le-Huy, Long Ho-Tuan, Cuong Do-Danh, Danh Le-Phuoc, Kok-Seng Wong

[Comprehensive Domain-Invariant Features Learning for Federated Domain Generalization](#)

Under Review at **Advances in Neural Information Processing Systems (NeurIPS 2023)**

Kok-Seng Wong*, Manh Nguyen-Duc*, Khien Le-Huy*, Long Ho-Tuan, Cuong Do-Danh, Danh Le-Phuoc

[An Empirical Study of Federated Learning on Iot-Edge Devices: Resource Allocation and Heterogeneity](#)

Under Review at **IEEE Internet of Things Journal**

Khien H. Le, Hieu H. Pham, Thao BT. Nguyen, Tu A. Nguyen, Tien N. Thanh, Cuong D. Do

[Enhancing Deep Learning-Based 3-Lead ECG Classification With Heartbeat Counting and Demographic Data](#)

IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES 2022)

Khiem H. Le, Hieu H. Pham, Thao BT. Nguyen, Tu A. Nguyen, Tien N. Thanh, Cuong D. Do
[LightX3ECG: A Lightweight and Explainable Deep Learning System for 3-Lead Electrocardiogram Classification](#)
Biomedical Signal Processing and Control

Khiem H. Le*, Tuan V. Tran*, Hieu H. Pham, Hieu T. Nguyen, Tung T. Le, Ha Q. Nguyen
[Learning From Multiple Expert Annotators for Enhancing Anomaly Detection in Medical Image Analysis](#)
IEEE Access

Cuong V. Nguyen, Khiem H. Le, Anh M. Tran, Quang H. Pham, Binh T. Nguyen
[Learning for Amalgamation: A Multi-Source Transfer Learning Framework for Sentiment Classification](#)
Information Sciences

ACADEMIC TEACHING

Academic Mentor Jan 2023 - Present
[FPT FUNiX](#)

- *Machine Learning Series*
Resolve students' issues during lectures studying. Grade programming labs, assignments, and final exams.

ACADEMIC ACHIEVEMENTS

Salutatorian	VNUHCM-US Entrance Exam 2017
Gold Medal	20 th Vietnam Southern Mathematical Olympiad for High School Students 2015

REFERENCES

Kok-Seng Wong, Ph.D	Associate Professor College of Engineering and Computer Science, VinUniversity wong.ks@vinuni.edu.vn
Binh T. Nguyen, Ph.D	Associate Professor Department of Mathematics and Computer Science, VNUHCM-US ngtbinh@hcmus.edu.vn