

# Khiem H. Le (B.Sc.)

## PERSONAL INFORMATION

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### Research Assistant

VinUniversity, Hanoi, Vietnam  
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Google Scholar: <https://bit.ly/3sw7e61>

## EDUCATION

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### Bachelor of Science (Honours) - Major: Mathematics

Sep 2017 - Sep 2021

Faculty of Mathematics and Computer Science, VNUHCM - University of Science

Graduation Thesis: [Vietnamese Sentiment Classification Using Deep Learning Methods](#)

## RESEARCH EXPERIENCE

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### Research Assistant

Jan 2023 - Present

[Security and Artificial Intelligence Lab](#)

VinUniversity

- *Project: Federated Domain Generalization*  
Domain generalization under the federated learning setting
- *Project: Federated Learning for Internet of Things*  
Explore challenges and practicalities of federated learning for IoT applications

### Research Assistant

Jan 2022 - Dec 2022

[VinUni-Illinois Smart Health Center](#)

VinUniversity

- *Project: ECG-Based Heart Arrhythmia Detection*  
Automatically identify abnormal heart rhythms based on reduced-lead electrocardiograms

### Research Intern

Oct 2020 - Dec 2021

[Smart Health Center at VinBigData](#)

VinBigData Institution

- *Project: Abnormality Detection on Chest Radiographs*  
Automatically localize and classify thoracic abnormalities from chest X-ray scans

### Research Intern

Jan 2020 - Sep 2020

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

VNUHCM - University of Science

- *Research Group: Vietnamese Natural Language Processing*  
Extract insights from text data and automate customer support

## TEACHING EXPERIENCE

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### Academic Mentor

Jan 2023 - Present

[FPT FUNIX](#)

- *Machine Learning Certification*

### Teaching Assistant

Apr 2023 - Present

[College of Engineering and Computer Science, VinUniversity](#)

- *Introduction to Programming (COMP1010)*
- *Undergraduate Research Opportunities Program (UROP)*

## SELECTED PUBLICATIONS

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### SUBMITTED/UNDER REVIEW

**Khiem Le-Huy**, Long Ho-Tuan, Cuong Do-Danh, Danh Le-Phuoc, Kok-Seng Wong  
[Comprehensive Domain-Invariant Representation Learning for Federated Domain Generalization](#)  
Submitted to International Conference on Artificial Intelligence and Statistics (AISTATS 2024)

GT Do, **KH Le**, TT Nguyen, QH Pham, BT Nguyen, TN Doan, C Liu, R Savitha, X Li, SCH Hoi  
[CompeteSMoE - Effective Training of Sparse Mixture of Experts via Competition](#)  
Submitted to International Conference on Learning Representations (ICLR 2024)

GT Do, **KH Le**, TT Nguyen, QH Pham, BT Nguyen, TN Doan, C Liu, R Savitha, X Li, SCH Hoi  
[HyperRouter: Toward Efficient Training and Inference of Sparse Mixture of Experts via HyperNetwork](#)  
Submitted to Empirical Methods in Natural Language Processing (EMNLP 2023)

Kok-Seng Wong\*, Manh Nguyen-Duc\*, **Khiem 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](#)  
Submitted to IEEE Transactions on Neural Networks and Learning Systems

### PUBLISHED

**Khiem 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

## STUDENT ACHIEVEMENTS

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Salutatorian	VNU-HCM University of Science Entrance Exam 2017
Gold Medalist	20 <sup>th</sup> Vietnam Southern Mathematical Olympiad for High School Students 2015

## LANGUAGES

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Vietnamese	Native
English	IELTS Overall Score: 6.5

## REFERENCES

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<b>Binh T. Nguyen, Ph.D</b>	Associate Professor Faculty of Mathematics and Computer Science, VNUHCM - University of Science <a href="mailto:ngtbinh@hcmus.edu.vn">ngtbinh@hcmus.edu.vn</a>
<b>Kok-Seng Wong, Ph.D</b>	Associate Professor College of Engineering and Computer Science, Vinuniversity <a href="mailto:wong.ks@vinuni.edu.vn">wong.ks@vinuni.edu.vn</a>