

Khanh-Huyen Bui

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EDUCATION

BSc in Computer Science (Honors)

VNU University of Engineering and Technology – **Salutatorian**

GPA: 3.86/4.0 – *Ranked 2nd/153 of the Computer Science Department.*

Sep 2019 – Jun 2023

Hanoi, Vietnam

WORK & RESEARCH EXPERIENCE

AI Engineer

AI Innovation Center (AI1), FPT Software

Jul 2025 – Now

Hanoi, Vietnam

- Developed and maintained multi-agent systems, leveraging orchestration framework and runtime for building and managing long-running and stateful agents.
- Performed backend integration with automated workflows for scalable systems
- Successfully delivered multiple specialized multi-agent systems, receiving high customer satisfaction.

Research Assistant

Center for Environmental Intelligence (CEI), VinUniversity

Apr 2024 – Jul 2025

Hanoi, Vietnam

- Developed methods to automate the process of material discovery. Published in two Q1 journals (IF 20 and 6.8).
- Advisors: **Prof. Dung D. Le** and **Prof. Tung Nguyen-Dang**.

AI Research Resident

AI Innovation Center (AI1), FPT Software

Aug 2023 – Jul 2025

Hanoi, Vietnam

- Investigated multimodal generative AI for diverse applications, including text-to-image and LLM-based recommender systems. Published in EMNLP 2024 and WACV 2026.
- Resolved ambiguous search queries on an e-commerce site by proposing a hybrid ranking method that combines semantic and full-text search.
- Advisor: **Prof. Dung D. Le**.

Undergraduate Research Assistant

AI Laboratory/ Institute for Artificial Intelligent (UET-IAI)

Mar 2022 – Jun 2023

Hanoi, Vietnam

- Developed an end-to-end system for automated Nuchal Translucency segmentation and measurement, spanning dataset preparation, model development, and performance evaluation.
- Achieved First prize in AI4VN challenges 2022: "VAIPE: Medicine Pill Image Recognition Challenge".
- Advisor: **Dr. Long Quoc Tran**.

Undergraduate Research Assistant

Data Science and Knowledge Technology Laboratory

Dec 2020 – Feb 2022

Hanoi, Vietnam

- Constructed a Vietnamese multi-label e-commerce dataset and established baselines with traditional statistical ML models and CNN-PhoBERT.
- Enhanced performance by applying Word-Window Locating and Chi-Squared feature selection, achieving around 95% Micro/Macro F1. Published in KSE 2021.

PUBLICATIONS

(*) Equal contribution

5. Quang-Huy Nguyen, Jin Peng Zhou, Zhenzhen Liu, **Khanh-Huyen Bui**, Kilian Q. Weinberger, Wei-Lun Chao, Dung D. Le. "**Detecting Out-of-Distribution Objects through Class-Conditioned Inpainting**". In *Proceedings of the Winter Conference on Applications of Computer Vision (WACV)*, 2026.
4. Zichao Rong, Zihao Chen, ..., **Khanh-Huyen Bui**, ..., Laurent El Ghaoui, Omar M. Yaghi. "**Algorithmic Iterative Reticular Synthesis of Zeolitic Imidazolate Framework Crystals**". In *Nature Synthesis*, 2025 (Q1 Journal, IF: 20.0).
3. Van-Hao Vu, **Khanh-Huyen Bui***, Khoa D.D. Dang*, Manh Duong-Tuan, Dung D. Le, Tung Nguyen-Dang. "**Finding Environmental-friendly Chemical Synthesis with AI and High-throughput Robotics**". In *Journal of Science: Advanced Materials and Devices*, 2025 (Q1 Journal, IF: 6.8).
2. Huy Quang Dao, Yang Deng, **Khanh-Huyen Bui**, Dung D. Le, Lizi Liao. "**Experience as Source for Anticipation and Planning: Experiential Policy Learning for Target-driven Recommendation Dialogues**". In *Findings of the Association for Computational Linguistics: EMNLP*, 2024.
1. Binh Le-Minh, Thi-Phuong Le, Khanh-Hung Tran, **Khanh-Huyen Bui**, Hoang-Quynh Le, Duy-Cat Can. "**Aspect-Based Sentiment Analysis Using Mini-Window Locating Attention for Vietnamese E-commerce Reviews**". In *Proceedings of the 13th International Conference on Knowledge and Systems Engineering (KSE)*, 2021.

SELECTED HONORS & AWARDS

"Student with five good merits" Certificate – Central Level	2022
Awarded to 85 students nationwide for excellence in: Academics, Ethics, Volunteerism, Physical Fitness, and Integration.	
First Prize, AI4VN Challenge	2022
Developed a medicine pill image recognition system; selected as best solution among 163 national teams.	
Second Prize, National Student Physics Olympiad	2021
National Outstanding Female Student in Science and Technology	2021
Awarded to 20 female STEM students nationwide for excellent academic performance.	
Second Prize, Student Scientific Research Contest	2021
Project: Aspect-oriented Vietnamese e-commerce sentiment analysis	
Acquired Scholarships	2019–2023
Vingroup Scholarship (2020–2021); Pony Chung Scholarship (2021–2022); UET Merit Scholarship (6 semesters).	

SKILLS

Programming	Python, Bash, C/C++, L ^A T _E X, Java, SQL, JavaScript, HTML/CSS.
Frameworks	PyTorch, Scikit-learn, LangChain, LangGraph.
Developer Tools	Git, Linux, Docker, PostgreSQL, Redis.
Languages	English (IELTS 7.0), Vietnamese.

REFERENCES

Prof. Dung D. Le, Assistant Professor, VinUniversity, Vietnam

Email: dung.ld@vinuni.edu.vn.

Homepage: <https://andrew-dungle.github.io>

Prof. Tung Nguyen-Dang, Assistant Professor, VinUniversity, Vietnam.

Email: tung.nd2@vinuni.edu.vn.

Homepage: <https://vinuni.edu.vn/people/nguyen-dang-tung-phd/>

Dr. Long Quoc Tran, Senior Lecturer (eq. Assistant Professor), VNU University of Engineering and Technology, Vietnam

Email: tqlong@vnu.edu.vn.

Homepage: <https://scholar.google.com/citations?user=tnDavuYAAAAJ>