

# Nguyễn Song Thiên Long

Undergraduate student

Faculty of Computer Science and Engineering

Ho Chi Minh City University of Technology (HCMUT), VNU-HCM

+84-837026259

✉ long.nguyencse2023@hcmut.edu.vn

🌐 [ura.hcmut.edu.vn/people/longstnguyen](https://ura.hcmut.edu.vn/people/longstnguyen)

🎓 Long S. T. Nguyen

## Education

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### • Bachelor of Computer Science (High-Quality Program)

2023–2027

Ho Chi Minh City University of Technology (HCMUT), Ho Chi Minh City, Vietnam

CGPA: 3.6/4.0

## Research Interests

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My research interests lie in **Natural Language Processing (NLP)**, with a primary focus on Information Retrieval (IR), Question Answering (QA), and Large Language Models (LLMs). My research focuses on Retrieval-Augmented Generation (RAG), hybrid lexical–semantic retrieval, and reliable reasoning in both agentic and standalone LLM-based systems. I am particularly interested in developing efficient, interpretable, and trustworthy methods for low-resource and multilingual settings, with an emphasis on Vietnamese and under-resourced ethnic languages, especially for Neural Machine Translation.

## Experience

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### • Research Assistant

Dec 2023 – Present

URA Research Group, Faculty of Computer Science and Engineering, HCMUT

On-site

- Conducting research on NLP, with an emphasis on IR, QA, and LLM-based systems, under the supervision of Prof. Quan Thanh Tho (Dean, Faculty of Computer Science and Engineering, HCMUT).
- Leading the group as Team Leader, including defining research directions, coordinating project execution, mentoring junior researchers, and managing end-to-end experimental and evaluation pipelines.
- Serving as Technical Lead and Consultant for applied AI projects with academic and industrial partners, contributing to system design, model development, and empirical validation.

### • AI Researcher

Oct 2025 – Present

Center for AI Research, VinUniversity

On-site

- Investigating IR methods, focusing on the training of lexical–dense and hybrid retrieval models and their integration into LLM-based QA systems, under the supervision of Prof. Luu Anh Tuan (NTU, Singapore).

### • Teaching Assistant

Sep 2025 – Present

Faculty of Computer Science and Engineering, HCMUT

On-site

- Supporting course delivery, assignments, laboratory sessions, and examinations for Introduction to Computing (CO1005) and Large Language Models (CO5317), under the supervision of Prof. Quan Thanh Tho.

## Selected Publications (20+ peer-reviewed papers)

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[1] Long S. T. Nguyen and Tho T. Quan. *Which Works Best for Vietnamese? A Practical Study of Information Retrieval Methods across Domains*. Conference of the European Chapter of the Association for Computational Linguistics (**EACL**), 2026. (**A-ranked Conference**)

[2] Hung C. Luu, Long S. T. Nguyen, Trung M. Pham, Hieu M. Pham, and Tho T. Quan. *HiGraAgent: Dual-Agent Adaptive Reasoning over Hierarchical Knowledge Graph for Open-Domain Multi-hop Question Answering*. Conference of the European Chapter of the Association for Computational Linguistics (**EACL**), 2026. (**A-ranked Conference**)

[3] Long Nguyen, Duc Nguyen, Quan Bui, Dung Phan, Dung Le, Khanh Nguyen, Quynh Vo, Khang Vo, Nam Duong, Anh Dinh, Tri Trinh, Chi Phan, An Nguyen, Thai Nguyen, Dang Le, Vinh Dang, and Tho Quan. *Catching the First Light of Tomorrow: A Hackathon-Based Framework for Introducing High School Students to AI Agents*. Symposium on Educational Advances in Artificial Intelligence (**EAAI**), co-located with **AAAI**, 2026. (**Symposium at A\*-ranked Conference**)

[4] Dung T. Phan\*, Chi N. L. Phan\*, Long S. T. Nguyen\*, Phuc T. Dao, Quan M. Bui, Tin T. Ngo, Thi T. Nguyen, and Tho T. Quan. *MAFIA-NeT: Multi-Agent Framework for Interactive Agricultural Negotiation and Trading Systems*. International Conference on Agents and Artificial Intelligence (**ICAART**), 2026. (**B-ranked Conference**)

[5] Long S. T. Nguyen, Quynh T. N. Vo, Hung C. Luu, and Tho T. Quan. *When in Doubt, Ask First: A Unified Retrieval Agent-Based System for Ambiguous and Unanswerable Question Answering*. International Joint Conference on Natural Language Processing & Asia-Pacific Chapter of the Association for Computational Linguistics (**IJCNLP-AAACL**), 2025. (**B-ranked Conference**)

[6] Long S. T. Nguyen, Truong P. Hua, Thanh M. Nguyen, Toan Q. Pham, Nam K. Ngo, An X. Nguyen, Nghi D. M. Pham, Nghia H. Nguyen, and Tho T. Quan. *A Benchmark Dataset and Evaluation Framework for Vietnamese Large Language Models in Customer Support*. International Conference on Computational Collective Intelligence (**ICCCI**), 2025. (**B-ranked Conference**)

[7] Duc Nguyen, Dong Le, Long Nguyen, Quyen Vu, Tran Le, Dung Nguyen, Nga Huynh, Huong Nguyen, Phat Tran, Dang Le, Sang Truong, Sanmi Koyejo, Cuong Le, and Tho Quan. *Riding on The Back of A Whale: A Hackathon Framework for Introducing High School Students to Large Language Models*. Conference on Artificial Intelligence in Education (AIED), 2025. (A-ranked Conference)

[8] Long S. T. Nguyen, Tran T. B. Le, Huong P. N. Nguyen, Quynh T. N. Vo, Phong H. N. Nguyen, and Tho T. Quan. *Serving the Underserved: Leveraging BARTBahnar Language Model for Bahnaric-Vietnamese Translation*. Workshop on Language Models for Underserved Communities (LM4UC), at NAACL, 2025. (Workshop at A-ranked Conference)

[9] Long S. T. Nguyen and Tho T. Quan. *URAG: Implementing a Unified Hybrid RAG for Precise Answers in University Admission Chatbots – A Case Study at HCMUT*. International Symposium on Information and Communication Technology (SoICT), 2024.

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## Selected Projects

### • URASys

URA Research Group – 2025

- Serving as Founder & Technical Lead, responsible for the design and implementation of an agentic educational QA system integrating dual document-FAQ retrieval with multi-agent planning for structured, citation-grounded reasoning and ambiguity-aware interaction. The system was publicly recognized by NVIDIA as a representative agentic AI use case at AI Day Ho Chi Minh City 2025.

### • URA-xLaw

URA Research Group – 2025

- Serving as Founder & Technical Lead, developing a domain-specific legal agentic QA system that combines RAG with ontology-based graph reasoning to deliver cited and up-to-date answers in the banking-law domain. The system received First Prize at a national FinTech competition and was featured by major government and national media.

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## International Programs

### • Selected Delegate AUN Summer Camp 2025

Aug 2025 – Sep 2025

Universiti Malaya, Kuala Lumpur, Malaysia.

### • Delegate SEMI-TECH Zoomers University Bootcamp

May 2025

National University of Singapore (NUS), Singapore.

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## Leadership and Management Experience

### • Head Organizer EXACT XAI Challenge (International, Annual)

Jan 2025 – Present

- Founded and currently leading the annual International XAI Challenge for Transparent Educational Question Answering (EXACT), focusing on neuro-symbolic reasoning and explainability for LLM-based educational QA systems. The challenge has been co-located with IEEE IJCNN for two consecutive years (2025–2026).

### • Head Organizer CSE Summer School (National, Annual)

May 2024 – Present

- Founded and currently leading the academic design and coordination of HCMUT’s annual CSE Summer School, introducing high school students to emerging AI topics and applications, including LLMs and AI Agents.

### • Organizer 18<sup>th</sup> MIWAI Conference

Jan 2025 – Dec 2025

- Designed an AI-assisted reviewer assignment mechanism to improve topic alignment and fairness, and maintained the official website for the International Conference on Multi-disciplinary Trends in Artificial Intelligence (MIWAI 2025).

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## Selected Achievements (Academic, Scientific, and Innovation Awards from National to International Levels)

- **Excellent Work Award** InnoServe Awards – Ministry of Education, Taiwan – **International** Dec 2025
- **Consolation Prize** AI Thuc Chien Competition – Ministry of Public Security, Vietnam – **National** Dec 2025
- **Third Prize** MOET National Science and Technology Awards for University Students – **National** Nov 2025
- **Second Prize** UIT Data Science Challenge – **National** Oct 2025
- **First Prize** FinTech ATTACKER – **National** Sep 2025
- **First Prize** Bach Khoa Innovation (Start-up Category) – **International** Aug 2025
- **Finalist** DIVE Global Data Hackathon – Busan, South Korea – **International** Aug 2025
- **Finalist (Top 15)** Best AI Awards – Ministry of Economic Affairs, Taiwan – **International** May 2025
- **First Prize** Makerthon Programming Competition – **National** May 2025

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## Languages

- **Vietnamese** (Mother tongue)
- **English** (IELTS Academic 7.0)

## References

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- **Prof. Quan Thanh Tho**

- Dean, Faculty of Computer Science and Engineering, HCMUT.
- E-mail: [qttho@hcmut.edu.vn](mailto:qttho@hcmut.edu.vn).
- Homepage: <https://www.cse.hcmut.edu.vn/qttho>.

- **Prof. Luu Anh Tuan**

- College of Computing and Data Science, Nanyang Technological University (NTU), Singapore.
- E-mail: [anhtuan.luu@ntu.edu.sg](mailto:anhtuan.luu@ntu.edu.sg).
- Homepage: <https://dr.ntu.edu.sg/entities/person/Luu-Anh-Tuan>.

- **Prof. Duong Nguyen Vu**

- Vice Provost of Graduate Education & Chief Scientific Officer, Center for AI Research, VinUniversity.
- Former Professor of Aerospace Engineering, Nanyang Technological University (NTU), Singapore.
- E-mail: [vu.dn@vinuni.edu.vn](mailto:vu.dn@vinuni.edu.vn).
- Homepage: <https://vinuni.edu.vn/people/duong-nguyen-vu-2/>.