Lam Nguyen Tung

PhD Student · Software Engineering

Monash University, Melbourne, Australia

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Research Interests

My research primarily focuses on the security and quality assurance of software systems, particularly in testing and repair, with an emphasis on the trustworthiness of intelligent software engineering tools. This involves developing and applying novel techniques in Artificial Intelligence and program analysis.

Education

Monash University *Melbourne, Australia*

PhD, Software Engineering *02/2024–present*

- Supervisor: Prof. Aldeida Aleti
- Thesis: *Automated Trustworthiness Testing Approach for Deep Learning-based Systems*

VNU University of Engineering and Technology *Hanoi, Vietnam*

MS, Software Engineering *08/2021–06/2023*

- Supervisor: A/Prof. Pham Ngoc Hung
- Thesis: *An Effectively Automated Test Data Generation Method for Automotive Projects Written in C/C++ Language*

VNU University of Engineering and Technology *Hanoi, Vietnam*

BS (First-class Honors), Information Technology *08/2017–07/2021*

- Supervisor: A/Prof. Pham Ngoc Hung
- Thesis: *On Improvements of Automated Test Data Generation Method for C/C++ Projects Based on Source Code Analysis*

Awards, Fellowships, & Grants

2024–2028	**Monash Graduate Scholarship**, Monash University	*$ 36,063/year*
	Monash International Tuition Scholarship, Monash University	*$ 52,400/year*
2021–2022	**Postgraduate Scholarship Program Grant**, Vingroup	*$ 5,000/year*
2021	**First Prize in Student Scientific Research Competition**, Vietnam National University (VNU)	

Publications

Lam Nguyen Tung, Steven Cho, Xiaoning Du, Neelofar Neelofar, Valerio Terragni, Stefano Ruberto, Aldeida Aleti. 2025, July. Automated Trustworthiness Oracle Generation for Machine Learning Text Classifiers. Proc. ACM Softw. Eng. 2, FSE, Article FSE106, 24 pages. https://doi.org/10.1145/3729376 · CoRE ranked A*.

Lam Nguyen Tung, Hoang-Viet Tran, Khoi Nguyen Le, Pham Ngoc Hung. 2022. An Automated Test Data Generation Method for Void Pointers and Function Pointers in C/C++ Libraries and Embedded Projects. Information and Software Technology, 145, p.106821. https://doi.org/10.1016/j.infsof.2022.106821 · Q1-ranked.

Lam Nguyen Tung, Nguyen Vu Binh Duong, Khoi Nguyen Le, Pham Ngoc Hung. 2024. Automated Test Data Generation and Stubbing Method for C/C++ Embedded Projects. Automated Software Engineering, 31, 2. https://doi.org/10.1007/s10515-024-00449-6 · Q2-ranked.

Tran Nguyen Huong, Le Huu Chung, **Lam Nguyen Tung**, Hoang-Viet Tran, Pham Ngoc Hung. 2022, October. An Automated Stub Method for Unit Testing C/C++ Projects. 14th International Conference on Knowledge and Systems Engineering (KSE) (pp. 1-6). IEEE. https://doi.org/10.1109/KSE56063.2022.9953784.

Thu Anh Bui, **Lam Nguyen Tung**, Hoang-Viet Tran, Pham Ngoc Hung. 2022, December. A Method for Automated Test Data Generation for Units Using Classes of QT Framework in C++ Projects. International Conference on Computing and Communication Technologies (RIVF) (pp. 388-393). IEEE. https://doi.org/10.1109/RIVF55975.2022.10013869.

Hoang-Viet Tran, **Lam Nguyen Tung**, Pham Ngoc Hung. 2022, December. A Pairwise-based Method for Automated Test Data Generation for C/C++ Projects. International Conference on Computing and Communication Technologies (RIVF) (pp. 1-6). IEEE. https://doi.org/10.1109/RIVF55975.2022.10013824.

Minh-Hieu Do, **Lam Nguyen Tung**, Hoang-Viet Tran, Pham Ngoc Hung. 2022, October. An Automated Test Data Generation Method for Templates of C++ Projects. 14th International Conference on Knowledge and Systems Engineering (KSE) (pp. 1-6). IEEE. https://doi.org/10.1109/KSE56063.2022.9953626.

Linh Ngoc Truc Tran, Nguyen Duc Nguyen, Hieu Vu Duc, Hoang Nguyen Viet, **Lam Nguyen Tung**, Hoang-Viet Tran, Pham Ngoc Hung. 2023, December. A Method for Detecting and Generating Test Data for Runtime Errors in C/C++ Project Units. International Conference on Computing and Communication Technologies (RIVF) (pp. 412-417). IEEE. https://doi.org/10.1109/RIVF60135.2023.10471836.

Professional Experience

2021–2024 **Teaching Assistant**, Faculty of Information Technology, VNU University of Engineering and Technology

- Taught multiple undergraduate courses
- Graded and assessed homework and group projects.
- Developed new artifact templates for an Object-oriented Analysis and Design course.
- Designed and implemented learning objectives, lesson plans, and activities aligned with course goals.
- Delivered high-quality teaching, receiving positive feedback from both faculty and students.

2018–2024 **Research Assistant**, Software Quality Assurance Lab, VNU University of Engineering and Technology

In collaboration with FPT Software Ltd. (2018–2024) & Viettel Group (2021–2023)

- Managed a team of 8–10 undergraduate students, several of whom published at IEEE conferences.
- Led R&D projects on automated testing and change impact analysis based on program analysis.
- Developed and delivered automated testing tools adopted in industrial projects.
- Secured a 5-year collaboration contract with FPT due to high performance and proven ability.

Outreach & Professional Development

Upcoming Service

2025 **The ACM International Conference on the Foundations of Software Engineering (FSE)**, Student Volunteer *Norway*

2025 **The IEEE International Symposium on Software Reliability Engineering (ISSRE)**, Program Committee Member *Brazil*

Past Service

2024 **ACM Transactions on Software Engineering and Methodology (TOSEM)**, Journal Article Reviewer

2017–2019 **VNU University of Engineering and Technology Job Fair**, Organization Committee Member *Vietnam*