Lam Nguyen Tung

PhD Student · Software Engineering

Monash University, Melbourne, Australia

■ lam.nguyentung@monash.edu | 🖀 lamntu.github.io | 🖬 Linkedin | G Scholar

Research Interests _

My research centres on the security and quality assurance of software systems, with a particular emphasis on automated testing and repair. I am especially interested in the trustworthiness of intelligent software engineering tools. My work involves developing and applying novel techniques in artificial intelligence and program analysis to support these goals.

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, Xiaoning Du, Neelofar Neelofar, Aldeida Aleti. UntrustVul: An Automated Approach for Identifying Untrustworthy Alerts in Vulnerability Detection Models. Under Peer-Review, Mar 2025. Preprint arXiv:2503.14852.
- Lam Nguyen Tung, Steven Cho, Xiaoning Du, Neelofar Neelofar, Valerio Terragni, Stefano Ruberto, Aldeida Aleti. Automated Trustworthiness Oracle Generation for Machine Learning Text Classifiers. The ACM International Conference on the Foundations of Software Engineering (FSE), Jul 2025. CORE ranked A*. https://doi.org/10.1145/3729376. (Oral).
- Lam Nguyen Tung, Hoang-Viet Tran, Khoi Nguyen Le, Pham Ngoc Hung. An Automated Test Data Generation Method for Void Pointers and Function Pointers in C/C++ Libraries and Embedded Projects. Information and Software Technology, May 2022. Q1-ranked. https://doi.org/10.1016/j.infsof.2022.106821.
- Lam Nguyen Tung, Nguyen Vu Binh Duong, Khoi Nguyen Le, Pham Ngoc Hung. *Automated Test Data Generation and Stubbing Method for C/C++ Embedded Projects*. Automated Software Engineering, Oct 2024. Q2-ranked. https://doi.org/10.1007/s10515-024-00449-6.
- Tran Nguyen Huong, Le Huu Chung, **Lam Nguyen Tung**, Hoang-Viet Tran, Pham Ngoc Hung. *An Automated Stub Method for Unit Testing C/C++ Projects*. 14th International Conference on Knowledge and Systems Engineering (KSE), Oct 2022. IEEE. https://doi.org/10.1109/KSE56063.2022.9953784. (Oral).

- Thu Anh Bui, Lam Nguyen Tung, Hoang-Viet Tran, Pham Ngoc Hung. 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), Dec 2022. IEEE. https://doi.org/10.1109/RIVF55975.2022.10013869. (Oral).
- Hoang-Viet Tran, **Lam Nguyen Tung**, Pham Ngoc Hung. *A Pairwise-based Method for Automated Test Data Generation for C/C++ Projects*. International Conference on Computing and Communication Technologies (RIVF), Dec 2022. IEEE. https://doi.org/10.1109/RIVF55975.2022.10013824. (Oral).
- Minh-Hieu Do, Lam Nguyen Tung, Hoang-Viet Tran, Pham Ngoc Hung. An Automated Test Data Generation Method for Templates of C++ Projects. 14th International Conference on Knowledge and Systems Engineering (KSE), Oct 2022. IEEE. https://doi.org/10.1109/KSE56063.2022.9953626. (Oral).
- Linh Ngoc Truc Tran, Nguyen Duc Nguyen, Hieu Vu Duc, Hoang Nguyen Viet, **Lam Nguyen Tung**, Hoang-Viet Tran, Pham Ngoc Hung. *A Method for Detecting and Generating Test Data for Runtime Errors in C/C++ Project Units*. International Conference on Computing and Communication Technologies (RIVF), Dece 2023. IEEE. https://doi.org/10.1109/RIVF60135.2023.10471836. (Oral).

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. [University Article]

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 Servi	CE	
2024–2025	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