

THU T. H. DOAN

PERSONAL INFORMATION

NAME: Thu Thi Hoai Doan
GENDER: Female
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FAMILY STATUS: Single
NATIONALITY: Vietnamese

PROFILE

I am a Ph.D. student in Computer Science at Gran Sasso Science Institute (GSSI), Italy. I obtained my bachelor's and master's degrees at VNU University of Engineering and Technology (VNU-UET), Vietnam. During my master's program, I worked as a researcher at the Laboratory of Software Quality Assurance (SQALab), Department of Software Engineering, VNU-UET, Vietnam. I had some experience with automated test data generation, especially for Java/TypeScript applications. My research areas are software testing, program analysis, and test case generation. Since 2022, the scope of my research has increased to include machine learning, deep learning, and recommender systems.

EDUCATION

8/2022	MASTER OF COMPUTER SCIENCE VNU University of Engineering and Technology, Hanoi, Vietnam
09/2020–8/2022	Studied Computer Science at VNU University of Engineering and Technology, Hanoi, Vietnam
Thesis title	A high coverage automated test data generation method for TypeScript Applications
GPA	3.85/4.0
6/2020	BACHELOR OF INFORMATION TECHNOLOGY (HONORS PROGRAM) VNU University of Engineering and Technology, Hanoi, Vietnam
9/2016–5/2020	Studied Information Technology at VNU University of Engineering and Technology, Hanoi, Vietnam
Thesis title	Developing an automated unit testing tool for TypeScript projects
GPA	3.77/4.0

MAJOR RESEARCH TOPICS OF INTEREST

- Machine learning for software engineering.
- Recommender systems for software engineering.
- Automated test data generation.
- Static testing, concolic testing.
- Program analysis, change impact analysis (CIA), regression testing.

WORK EXPERIENCE

8/2020 – 7/2023: working at Laboratory of Software Quality Assurance, VNU University of Engineering and Technology, Vietnam:

- **Principal investigator:** Apply several cutting-edge pre-trained models to perform summarization tasks on software artifacts;
- **Participant** in Project: Apply graph neural networks in edge detection to classify electrocardiogram signals;
- **Principal investigator:** Apply static testing techniques to automatically generate test data for TypeScript server-side web applications;

- **Teaching assistant:** Teach object-oriented programming in practice, and several basic office computer skills (Word, PowerPoint, Excel).

9/2016 - 6/2020: studying at the Faculty of Information Technology, VNU University of Engineering and Technology, Vietnam:

- **Principal investigator:** Develop approaches for automated unit testing generation for TypeScript functions;
- **Participant in Project:** Change Impact Analysis for C/C++ projects;
- **Participant in Project:** Develop OASIS - A system of Object Oriented Programming exercises for students of the university.

PROGRAMMING AND RELEVANT SKILLS

- Basic knowledge of the Linux operating system;
- Familiar with data structure, databases (MySQL, MongoDB), tools (Git, JetBrains IDEs), Docker;
- Skills in object-oriented languages like Java and Python;
- Basic skills with Deep Learning frameworks including TensorFlow, and PyTorch;
- Basic knowledge of Pandas, Numpy, and Scikit-learn in Python;
- Familiar with certain Jupyter notebook environments such as Google Colab, and Kaggle;
- Skills with LaTeX;

SCIENTIFIC PROFILES

- Google Scholar: <https://scholar.google.com/citations?user=u88raEkAAAAJ&hl=en>;

PUBLICATIONS

Journal papers

- Linh T. Duong, **Thu T. H. Doan**, Cong Q. Chu, Phuong T. Nguyen, “*Fusion of edge detection and graph neural networks to classifying electrocardiogram signals*,” Elsevier Expert Systems with Applications (ESWA), 2023, ISSN: 0957-4174, DOI: [10.1016/j.eswa.2023.120107](https://doi.org/10.1016/j.eswa.2023.120107).

Conference papers

- **Thu T. H. Doan**, Phuong T. Nguyen, Juri Di Rocco, Davide Di Ruscio, “*Too long; didn’t read: Automatic summarization of GitHub README.MD with Transformers*,” in Proceedings of the International Conference on Evaluation and Assessment in Software Engineering (EASE 2023), Oulu City, Finland, 2023, DOI: [10.1145/3593434.3593448](https://doi.org/10.1145/3593434.3593448), to appear.
- **Thu T. H. Doan**, Le Duy Quang, Duc-Anh Nguyen, Pham Ngoc Hung, “A Method of Automated Mock Data Generation for RESTful API Testing,” 2022 RIVF International Conference on Computing and Communication Technologies (RIVF), Ho Chi Minh City, Vietnam, 2022, pp. 376-381, DOI: [10.1109/RIVF55975.2022.10013835](https://doi.org/10.1109/RIVF55975.2022.10013835).
- **Thu T. H. Doan**, Duc-Anh Nguyen, Pham Ngoc Hung, “Automated Test Data Generation for Typescript Web Applications,” 2021 13th International Conference on Knowledge and Systems Engineering (KSE), Bangkok, Thailand, 2021, pp. 1-6, DOI: [10.1109/KSE53942.2021.9648782](https://doi.org/10.1109/KSE53942.2021.9648782).

REFERENCES

- Dr. Pham Ngoc Hung
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HONOURS AND AWARDS

- VINIF Domestic Master Scholarship Program (2021, 2022);
- VNU-UET. Certificate of Excellent Bachelor Thesis (2020);
- Microsoft YouthSpark Scholarship for female students (2018);
- VNU-UET. University scholarship for outstanding students (2016 - 2020).

MISCELLANY

- **Languages:** Vietnamese (native), and English (good - IELTS 6.5);
- **Soft skills:** logical thinking, time management, teamwork, and adaptability;
- **Hobbies:** playing chess, reading, watching movies.