

Thai Bao Huynh

Student

tbaro27102005@gmail.com (October 2025)

EDUCATION

University of Information Technology, Ho Chi Minh City

- *Bachelor of Science in Artificial Intelligence*
GPA: 3.06/4.00 (Oct 2025)

2023 – 2027

RESEARCH EXPERIENCES

- **Evolutionary Learning & Optimization** Oct 2024 - Present
Research Student Advisor: Ph.D. Ngoc Hoang Luong
 - **Genetic Algorithms & Adversarial Attack:** Conducted research on black-box and white-box adversarial attacks targeting OCR systems, vision-language models (VLMs), and similar AI models to evaluate and improve their robustness.
- **Multimedia Laboratory** Feb 2025 - June 2025
Research Student Advisor: Researcher Duc-Vu Nguyen
 - **Large Language Models:** Research and development of multimodal systems and pipelines for educational question answering tasks with explainability capabilities.
 - **3D Objects Retrieval:** Research on systems for 3D object retrieval and reconstruction from images and masked 2D inputs.
- **Stubborn Strawberries team** Jan 2025 - Present
Researcher Mentor: Mr Quoc-Bao Nguyen
 - **Text to 3D models:** Research and improvement of text-to-3D models; developed pipelines integrating multiple models.
 - **ARM64 CPU Architecture:** Researched performance and addressed emerging issues in ARM64 CPU architecture.
- **Weakly supervised** June 2025 - Present
Research Student Advisor: Ph.D. Candidate Tan-Ha Mai
 - **Weakly supervised:** Focus on complementary-label learning, specifies a class that a pattern does not belong to .

PROJECTS

- **AdvRE-ViHandOCR:** Evaluated the adversarial robustness of a Vietnamese handwriting OCR model against PGD white-box attacks. <https://github.com/tbaro19/AdvRE-ViHandOCR>
- **VNOID:** Scripts to benchmark the performance of large language models (LLMs) using vLLM. Help you measure throughput, latency, and the effect of CPU offloading on inference. <https://github.com/tbaro19/VNOID>.

SKILLS / EXPERIENCES

- **Languages:** Python (scikit-learn, NumPy, Pandas, PyTorch, ...), C++ (Arduino IDE).
- **Technical Skills:** Linux, Arduino/Raspberry Pi/Jetson Nano, ARM64 CPU Architecture, Adversarial Attack, Computer Vision, NLP, Genetic Algorithm, ...
- **Teaching Skills:** Lecture Designing, Presentation, Mentoring, Hosting & Reviewing.

PUBLICATIONS

- T. B. Huynh, Q. M. Phan, V.-H. Duong, *et al.*, “Adversarial Robustness Evaluation of a Vietnamese Handwriting OCR System,” in *2025 International Conference on Multimedia Analysis and Pattern Recognition (MAPR)*, 2025, pp. 1–6. DOI: 10.1109/MAPR67746.2025.11133909
- T.-T. Nguyen, V.-T. Huynh, Q.-T. Nguyen, *et al.*, “SHREC 2025: Retrieval of Optimal Objects for Multi-modal Enhanced Language and Spatial Assistance (ROOMELSA),” *Computers & Graphics*, vol. 132, p. 104 400, 2025, ISSN: 0097-8493. DOI: <https://doi.org/10.1016/j.cag.2025.104400>. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0097849325002419>

REWARDS

- 1st Champion xAI Challenge @ IJCNN 2025.
- 1st Champion ROOMELSA @ SHREC 2025.
- 2nd Prize EVENTA @ ACM Multimedia 2025 - Track 2.
- 3rd Prize Olympiad AI HCMC 2025.
- 4th Prize Vietnam Science & Engineering Fair 2023.

SOCIAL ACTIVITIES

- Mentor of Science Lab programs: ELECTRAHACK 2023, SIP 2024, ICOHACK 2024, SOFTHACK 2025.
- Organizer/Volunteer of Arduino Day Vietnam 2023.
- Speak about ARM64 CPU Architecture at Arduino Day Vietnam 2025, HCMC AI Meetup #1 - Menlo Research, OpenInfra & Cloud Native Day Vietnam 2025.
- Participant of SoICT Summer School 2025: Agentic AI (Selected as 1 of 54 participants from 190 nationwide applicants)

REFERENCES

1. **Ngoc Hoang Luong**

Ph.D., Head of the Department of Artificial Intelligence, Faculty of Computer Science
University of Information Technology, VNUHCM

Email: hoangln@uit.edu.vn

Relationship: Research Advisor

2. **Duc-Vu Nguyen**

Researcher, Multimedia Laboratory
University of Information Technology, VNUHCM

Email: vund@uit.edu.vn

Relationship: Research Advisor

3. **Quoc-Bao Nguyen**

Lead of Software Engineer, Zalo
VNG Corporation

Email: quocbao747@gmail.com

Relationship: Research Mentor

4. **Tan-Ha Mai**

Ph.D. Candidate, Department of Computer Science and Information Engineering
National Taiwan University

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Relationship: Research Advisor