HOANG MINH TRUONG

(+84) 945 087 421 ◇ Email ◇ LinkedIn ◇ GitHub ◇ Homepage ◇ Google Scholar

RESEARCH INTERESTS

My research focuses on **Computer Vision**, particularly **Vision-Language Modeling**, **Video Understanding**, and **Robotics Perception**, with the goal of developing scalable and robust AI systems capable of cross-modal understanding and real-world interaction.

EDUCATION

University of Science, Viet Nam National University Ho Chi Minh City Sep. 2022 – Mar. 2026
Bachelor of Science in Data Science GPA: 3.82/4 (9.09/10)

· **Thesis:** Hyperbolic Open-Vocabulary Semantic Segmentation: Enhancing Visual Understanding through Representation Learning (9.9/10)

EXPERIENCE

Viettel High Tech Jul. 2025 – Oct. 2025
AI Research Engineer *Ho Chi Minh City, Vietnam*

· Worked on a key real-world 5G energy optimization project while maintaining coverage and quality of service.
· Developed an online reinforcement learning algorithm with linear-time training and constant-time inference.

Viettel Group - Viettel Digital Talent 2025 Apr. 2025 – Oct. 2025
Data Science & AI Intern *Ho Chi Minh City, Vietnam*

· Program acceptance rate: ∼5%
· Developed a multi-agent system using LangGraph to automate 5G network manual operations.
· Top 2 (out of 40) in the Data Science & AI track, Innovation Idea Competition.

AISIA Research Lab Feb. 2024 – Jun. 2025
Undergraduate Research Assistant

· Led a research project on multimodal sarcasm classification.

PUBLICATIONS

Semantic Alignment in Hyperbolic Space for Open-Vocabulary Semantic Segmentation
Hoang M. Truong, Hai Nguyen-Truong, Dang Huynh
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2026

TinyGiantVLM: A Lightweight Vision-Language Architecture for Spatial Reasoning under Resource Constraints
Vinh-Thuan Ly, **Hoang M. Truong**, Xuan-Huong Nguyen
IEEE/CVF International Conference on Computer Vision (ICCV) Workshops, 2025

Dual-Path Enhancements in Event-Based Eye Tracking: Augmented Robustness and Adaptive Temporal Modeling
Hoang M. Truong, Vinh-Thuan Ly, Huy G. Tran, Thuan-Phat Nguyen, Tram T. Doan
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2025

Event-based eye tracking. Event-based Vision Workshop 2025
..., **Hoang M. Truong**, Vinh-Thuan Ly, Huy G. Tran, Thuan-Phat Nguyen, Tram T. Doan
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops, 2025

TECHNICAL SKILLS

Machine Learning	Vision-Language Models, Multi-modal Learning, Reinforcement Learning
Programming Languages	Python, C/C++, R, SQL
Software & Frameworks	PyTorch, Git, Linux, LaTeX

LANGUAGES

Vietnamese: Native

English: VSTEP B2 (7.5/10)

HONORS AND AWARDS

- **Jensen Huang Scholarship**, NVIDIA 2025
- **Odon Vallet Scholarship** 2025
- **AmCham Scholarship**, American Chamber of Commerce in Vietnam 2025
- **Mathematics Development Scholarship** 2025–2026
  Vietnam Institute for Advanced Study in Mathematics (VIASM)
- **Academic Excellence Scholarship** (3 semesters) 2023–2026
  University of Science, VNU-HCM
- **5th Place**, AI City Challenge Track 2, ICCV'25 2025
- **4th Place**, Efficient Event-based Eye Tracking (3ET) Challenge, CVPR'25 2025