Duc Tai Phan

ducptse194683@fpt.edu.vn
https://taiduc1001.github.io/
Ho Chi Minh City, Vietnam

Education

2023–26[1] **B.Sc.**, Software Engineering, FPT University

Research Experience

2023–26[2] Research Assistant, AI Technology and Application Research Lab, FPT University, Ho Chi Minh City, Vietnam

Awards & Honors

Dec 2025 Second Prize, Student Research Festival Fall 2025, FPT University
Aug 2025 Second Prize, Student Research Festival Summer 2025, FPT University

Publications

Google Scholar
† → Equal contribution

Journal Articles

J1. **Duc Tai Phan**, Nguyen, N. M., Nguyen, K. P., Tran, P.-N., Pham, N. T., Le, L., Hong, C. S. & Dang, D. N. M. From object difficulty to image scoring: A strategy for active learning in object detection. *Knowledge-Based Systems*. https://doi.org/10.1016/j.knosys.2026.115946 (2026).

Peer-reviewed Conference Proceedings

C1. Nguyen, T. T., Nguyen, N. M., **Duc Tai Phan**, Hoang, Q. N., Pham, T. M. & Dang, D. N. M. *Swin Transformer V2 for Optical Chemical Structure Recognition: Comparison with Convolutional Neural Networks and Swin Transformer Variants* in *The 22nd International Conference on Electrical Engineering/Electronics, Computer, Telecommunications and Information Technology (ECTI-CON 2025)* (2026).

[1] Expected.

C2. Nguyen, P. L., **Duc Tai Phan**, Nguyen, T. T., Nguyen, N. M. & Dang, D. N. M. *YOLOv5-Powered Smart Parking System with IoT-Based Real-Time Slot Monitoring* in *2025 RIVF International Conference on Computing and Communication Technologies (RIVF 2025)* (2025). https://doi.org/10.1109/RIVF68649.2025.11365041.

C3. **Duc Tai Phan**, Nguyen, N. M. & Dang, D. N. M. *DAAL: Dual Ambiguity in Active Learning for Object Detection with YOLOE* in *17th International Conference on Management of Digital Ecosystems* (2025).

C4. Nguyen, N. M., **Duc Tai Phan** & Dang, D. N. M. *GloMER: Towards Robust Multimodal Emotion Recognition via Gated Fusion and Contrastive Learning* in *17th International Conference on Management of Digital Ecosystems* (2025).

C5. **Duc Tai Phan**, Nguyen, N. M., Nguyen, K. P., Pham, T. M. & Dang, D. N. M. *ALMUS: Enhancing Active Learning for Object Detection with Metric-Based Uncertainty Sampling* in *2025 25th Asia-Pacific Network Operations and Management Symposium (APNOMS'2025)* (2025). https://doi.org/10.23919/APNOMS67058.2025.11181447.

C6. Nguyen, N. M., Le, T. T., Nguyen, T. T., **Duc Tai Phan**, Tran, A. K. & Dang, D. N. M. *CemoBAM: Advancing Multimodal Emotion Recognition through Heterogeneous Graph Networks and Cross-Modal Attention Mechanisms* in *2025 25th Asia-Pacific Network Operations and Management Symposium (APNOMS'2025)* (2025). https://doi.org/10.23919/APNOMS67058.2025.11181320.

C7. **Duc Tai Phan**, Tran, P.-N. & Dang, D. N. M. *Improving Face Attendance Checking System with Ensemble Learning* in *2024 RIVF International Conference on Computing and Communication Technologies (RIVF 2024)* (2024). https://doi.org/10.1109/RIVF64335.2024.11009085.

C8. Tran, P.-N., Pham, N. T., Phan, N. V. H., **Duc Tai Phan**, Nguyen, C. T. & Dang, D. N. M. *Towards Real-Time Vietnamese Traffic Sign Recognition on Embedded Systems* in *2024 15th International Conference on Information and Communication Technology Convergence (ICTC 2024)* (2024). https://doi.org/10.1109/ICTC62082.2024.10827558.

Industry Experience

2025–26 AI Engineer, IMT Solutions, Ho Chi Minh City, Vietnam
2024–25 AI Engineer, ABCStudio, Ho Chi Minh City, Vietnam