Le-Anh Tran, PhD

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ABOUT ME

Al Research Scientist with 7+ years of experience in academia and industry, specializing in developing advanced algorithms and solutions for image enhancement, cluster analysis, and object detection. Proficient in Python and frameworks such as Tensorflow, Pytorch, and Conda. Published multiple research papers in peer-reviewed Al/ML-related journals and conferences. A collaborative team player with a strong passion for advancing Al-driven technologies, including computer vision, chatbots, large language models (LLMs), and other cutting-edge innovations.

EDUCATION -

3/2019 - 2/2024 PhD in Electronics Engineering (Computer Vision)

Myongji University (Natural Science Campus), South Korea

9/2014 - 8/2018 BEng in Automation and Control Engineering (Graduated with Honors)

HCMC University of Technology and Education (HCMUTE), Vietnam

EXPERIENCE -

4/2020 - Present Research Staff Member

MindinTech, Inc., Seoul, South Korea

Researched and developed vision-based techniques for advanced driver-assistance systems

3/2019 - 2/2024 Research Assistant

Intelligent Computing Research Lab (ICRL), Myongji University, South Korea

Researched and developed cutting-edge algorithms for image enhancement and cluster analysis

7/2019 - 9/2019 Software Development Intern

OCST Co., Ltd., Seoul, South Korea

Developed a software system for object detection streaming and data management

3/2018 - 2/2019 Al Engineer

FPT Software, Ho Chi Minh City, Vietnam

Developed and implemented vision-based algorithms for the first piloted driver-less car in Vietnam

2/2017 - 1/2018 **Teaching Assistant**

Faculty of Electrical and Electronics Engineering, HCMUTE, Vietnam

Assisted the lecturer during classes, prepared lesson plans, and evaluated assignments

EXPERTISE

Skills

- Programming: Python, Conda, Darknet, Tensorflow, Keras, Pytorch
- Document Presentation: MS Word, MS PowerPoint, LaTeX
- Technical: Statistical Analysis, Visualization, Technical Reporting, Problem Solving, etc.
- Concept: Knowledge Distillation, Knowledge Transfer, Learning without Forgetting, Dark Channel Prior, Non-Maximum Suppression, Vision Transformer, Generative Adversarial Networks, etc.

Languages

- Vietnamese (native)
- English (proficient)

Services

- Blog Writing: Towards Data Science · Level Up Coding
- Peer Reviewing: IEEE Transactions on Image Processing \cdot IEEE Transactions on Intelligent Transportation Systems \cdot Biomedical Signal Processing and Control \cdot Sensors \cdot Electronics \cdot Supercomputing \cdot Scientific Reports \cdot The Visual Computer \cdot Intelligent Data Analysis \cdot International Journal of Machine Learning and Cybernetics

PUBLICATIONS

Journal Articles (†: co-first author)

2025 Distilled Pooling Transformer Encoder for Efficient Realistic Image Dehazing

LA Tran, DC Park

Neural Computing and Applications (SCIE)

2024 Drone-view Haze Removal via Regional Saturation-Value Translation and Soft Segmentation

TD Do[†], LA Tran[†], S Moon, J Chung, NP Nguyen, SK Hong

IEEE Access (SCIE)

2024 Lightweight Image Dehazing Networks based on Soft Knowledge Distillation

LA Tran, DC Park

The Visual Computer (SCIE)

2024 Encoder-Decoder Networks with Guided Transmission Map for Effective Image Dehazing

LA Tran, DC Park

The Visual Computer (SCIE)

2024 Cluster Analysis via Projection onto Convex Sets

LA Tran, D Kwon, HM Deberneh, DC Park

Intelligent Data Analysis (SCIE)

Conference Proceedings (†: co-first author, §: corresponding author)

2025 Eye Side and Orientation Detection of Iris Images using Lightweight Textural Descriptors

NC Tran, J Carrabina, D Castells-Rufas, MS Nguyen, LA Tran, NC Dang

IEEE International Conference on Image Processing, Applications and Systems (IPAS)

2024 Clustering Optimization via Centroid Neural Network Ensemble

NC Tran, LA Tran[§], NP Le, J Carrabina, D Castells-Rufas, MS Nguyen, NC Dang

IEEE International Conference on Future Machine Learning and Data Science (FMLDS)

2024 POCS-based Image Compression: An Empirical Examination

TD Do[†], LA Tran[†], TD Nguyen, NN Truong, DC Park, MH Le

IEEE International Conference on Green Technology and Sustainable Development (GTSD)

2024 Toward Improving Robustness of Object Detectors against Domain Shift

LA Tran, NC Tran, DC Park, J Carrabina, D Castells-Rufas

IEEE International Conference on Green Energy, Computing and Sustainable Technology (GECOST)

2024 Single Image Dehazing via Regional Saturation-Value Translation

LA Tran, D Kwon, DC Park

Procedia Computer Science, Vol. 237

2023 Embedding Clustering via Autoencoder and Projection onto Convex Set

LA Tran, TD Nguyen, TD Do, NC Tran, D Kwon, DC Park

IEEE International Conference on System Science and Engineering (ICSSE)

2023 Efficient Infrared-Thermal Imaging Fusion for Human Detection in Heavy Smoke Scenarios

NN Truong, MH Le, TD Do, LA Tran, TD Nguyen, HH Trinh

IEEE International Conference on System Science and Engineering (ICSSE)

2023 Encoder-Decoder Network with Guided Transmission Map: Robustness and Applicability

LA Tran, DC Park

Smart Innovation, Systems and Technologies, Vol. 333

2022 Encoder-Decoder Network with Guided Transmission Map: Architecture

LA Tran, DC Park

International Conference on Advances in Signal Processing and Artificial Intelligence (ASPAI)

2022 POCS-based Clustering Algorithm

LA Tran, HM Deberneh, TD Do, TD Nguyen, MH Le, DC Park IEEE International Workshop on Intelligent Systems (IWIS)

Encoder-Decoder Network with Guided Transmission Map for Image Dehazing 2022 LA Tran, S Moon, DC Park Procedia Computer Science, Vol. 204 2021 **Enhancement of Robustness in Object Detection Module for ADAS** LA Tran, TD Do, DC Park, MH Le IEEE International Conference on System Science and Engineering (ICSSE) 2020 Object Detection Streaming and Data Management on Web Browser LA Tran Technical Report, OCST Co., Ltd. Robust U-Net-based Road Lane Markings Detection for Autonomous Driving 2019 LA Tran, MH Le IEEE International Conference on System Science and Engineering (ICSSE) A Vision-based Method for Autonomous Landing on a Target with a Quadcopter 2018 LA Tran, NP Le, TD Do, MH Le IEEE International Conference on Green Technology and Sustainable Development (GTSD) **Preprint** 2025 Unpaired Image Dehazing via Kolmogorov-Arnold Transformation of Latent Features LA Tran

arXiv:2502.07812