Le-Anh Tran, PhD

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ABOUT ME

AI 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 AI/ML-related journals and conferences**. A collaborative team player with a strong passion for advancing AI-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 **AI 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)

Academic Services

- Technical Blog Writing: Towards Data Science, Level Up Coding
- Peer Reviewing: IEEE Transactions on Image Processing, IEEE Transactions on Intelligent Transportation Systems, Intelligent Data Analysis

PUBLICATIONS

Journal Articles (†: co-first author)

2024 **Distilled Pooling Transformer Encoder for Efficient Realistic Image Dehazing**
LA Tran, DC Park
Neural Computing and Applications (**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**)

Submitted **Drone-view Haze Removal via Regional Saturation-Value Translation and Soft Segmentation**
TD Do†, LA Tran†, S Moon, J Chung, NP Nguyen, SK Hong
Submitted to IEEE Access (**SCIE**), Under Review

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

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)

2022 **Encoder-Decoder Network with Guided Transmission Map for Image Dehazing**
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.

2019 **Robust U-Net-based Road Lane Markings Detection for Autonomous Driving**
LA Tran, MH Le
IEEE International Conference on System Science and Engineering (ICSSE)

2018 **A Vision-based Method for Autonomous Landing on a Target with a Quadcopter**
LA Tran, NP Le, TD Do, MH Le
IEEE International Conference on Green Technology and Sustainable Development (GTSD)