




Tran Anh Thuan

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EDUCATION

Pukyong National University

Busan, South Korea

M.Eng. in Artificial Intelligence Convergence; GPA: 4.4/4.5

Mar 2022 – Feb 2024

- **Research Interest:** Computer vision, Deep learning, 3D vision, Point cloud weakly-supervised processing
- **Relevant coursework:** Neural Network, Statistical Learning Model, Artificial Intelligence Programming
- **Thesis:** Point Central Transformer Network for Weakly-supervised Point Cloud Semantic Segmentation (A+)

Advisor: Prof. Ki-Ryong Kwon

University of Economics and Law, Vietnam National University

Ho Chi Minh City, Vietnam

B.Ec. in E-commerce, Faculty of Information Systems; GPA: 7.8/10

Sep 2017 – July 2021

- **Relevant coursework:** Data Structure and Algorithm, Probability Theory, Information System Analysis and Design, Programming Techniques, Database
- **Thesis:** Design of an AI-based Smart Classroom Management System (A+)

Advisor: Prof. Hoanh-Su Le

PUBLICATIONS

- [1] Anh-Thuan Tran, Hoanh-Su Le, Suk-Hwan Lee, and Ki-Ryong Kwon. PointCT: Point Central Transformer Network for Weakly-Supervised Point Cloud Semantic Segmentation. In *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision*, pages 3556–3565, 2024.
- [2] Anh-Thuan Tran, Hoanh-Su Le, Suk-Hwan Lee, and Ki-Ryong Kwon. Local Graph Point Attention Network in Point Cloud Segmentation. *IEEE Access*, 11:33296–33312, 2023.
- [3] Anh-Thuan Tran, Hoanh-Su Le, Oh-Joon Kwon, Suk-Hwan Lee, and Ki-Ryong Kwon. General Local Graph Attention in Large-scale Point Cloud Segmentation. In *2023 IEEE International Conference on Consumer Electronics (ICCE)*, pages 1–4. IEEE, 2023.
- [4] Tran Anh-Thuan, Nguyen Anh-Nhat, Bui Xuan-Thanh, Vo Nguyen-Tam-An, and Le Hoanh-Su. A proposed method for opinion mining online media of smartphone with Vietnamese text. In *The 6th International Conference for Small and Medium Business 2020 (ICSMB 2020)*, volume 1, pages 362–367, 2020.

RESEARCH EXPERIENCE

Multimedia Signal Processing Lab

Busan, South Korea

Graduate Research Assistant

Mar 2022 – Feb 2024

- Working on 3D generative model and reconstruction in large-scale scenes.
- Working on 4D point cloud panoptic segmentation in scene understanding. The proposed network can perform panoptic segmentation in point cloud sequences.
- Proposing point-based Transformer architecture in weakly-supervised 3D point cloud segmentation. The network outperform other fully-supervised methods using only 0.1% point annotations.

SCHOLARSHIP

- Brain Korea 21, Graduate Student Research Scholarship (Artificial Intelligence Convergence Research Group), Pukyong National University (Mar. 2022 - Feb. 2024)
- Full-time scholarship for graduate students, Pukyong National University (Mar. 2022 - Feb. 2024)
- Graduate student scholarship project support, Pukyong National University (Sep. 2022 - Feb. 2023)

AWARDS

- Outstanding International Student Award - Pukyong National University (2024)
- Excellent achievement in undergraduate research – University of Economics and Law, VNU-HCM (2022)
- Third Prize Young Scientist – University of Economics and Law, VNU-HCM (2018, 2020)
- Third Prize Goldberg Machine Contest – South Korea (Nov. 2017)

PROFESSIONAL EXPERIENCE

Tuan Loc Commodities

Ho Chi Minh City, Vietnam

Data Research Analyst

Sep 2021 – July 2022

- Exporting reports monthly in docx and pptx format automatically using python directly from SQL Server.
Responsibilities: Data cleaning and processing, extract charts and insights to predefined format
- Building forecasting model and backtest strategy to forecast future price in the coffee market
Responsibilities: Building appropriate forecasting model (Prophet, Z-score) and integrate into current strategies

TECHNICAL PROJECTS

AI-based Smart Classroom

- Applying machine learning models in smart classroom specialized tasks for attendance, exam verification, and teaching evaluation.

Opinion mining with Vietnamese text

- News: Gather news, comments in the Smartphone industry in Vietnamese online newspapers and using machine learning to classify them.
- Product reviews: Building the semi-supervised sentimental model to classify online reviews on an e-commerce market.

PhoBERT Extraction

- Building module that accelerates installing and implementing PhoBERT for feature extraction and text generation in Vietnamese.

CERTIFICATES

Google Data Analytics Certificate

Mar 2022

Data Analytics, SQL, Data Visualization, R, Problem Solving, Data Aggregation

Data Science Professional Certificate

Mar 2021

AI, Data Analysis, Data Science, IBM Cloud, Clustering

Applied Data Science Specialization

Apr 2020

Data Visualization, Machine Learning, Text Mining, Social Network Analysis

Deep Learning Specialization

Mar 2020

Convolutional Neural Networks, Recurrent Neural Networks, LSTMs, Transformers, Tensorflow

SKILLS

Programming: Python **Framework:** Pytorch **Operating System:** Ubuntu

Libraries: Pointops, Multiprocessing, Lr Scheduler, Numpy, Pandas, Matplotlib, TensorboardX

Applications: Point cloud processing, Stock price forecasting, Text classification, Emotion detection, Automated report, Optimization clustering

Languages: Vietnamese (Native), English (Professional)