TUAN-ANH VU

Personal Data

Address: The Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong
Phone: +852 6746 4059
Email: tuananh.vu@connect.ust.hk
Homepage: https://tuananh1007.github.io/

Education

2019 - now **Ph.D. candidate in Computer Science and Engineering**, Hong Kong University of Science and Technology
Supervisor: Assoc. Prof. Sai-Kit Yeung
Area of Study: Deep Learning, 3D Reconstruction, Scene Understanding

2011 - 2016 **B.Sc. in Computer Science**, International University - Vietnam National University HCM City
Supervisor: Synh Viet-Uyen Ha, Ph.D.
Thesis title: Extend Traffic Signs Detection and Recognition Algorithm in Nighttime in Viet Nam

Publications

Journal Papers

2018 Synh Viet-Uyen Ha, **Tuan-Anh Vu**, and Ha Manh Tran, **"An Extended Occlusion Detection Approach for Video Processing,** REV Journal on Electronics and Communications, Vol 8, No. 3-4, pp. 55-64, 2018. (Link)

Conference/Workshop Papers

2023 Tan-Sang Ha*, Hai Nguyen-Truong*, **Tuan-Anh Vu**, and Sai-Kit Yeung, **"MarineVRS: Marine Video Retrieval System with Explainability via Semantic Understanding",** OCEANS 2023, Limerick (Link)

2023 Kiefer Benjamin *et al.*, **"1st Workshop on Maritime Computer Vision (MaCVi) 2023: Challenge Results",** Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) Workshops. (Link)

2023 Quang-Trung Truong, **Tuan-Anh Vu**, Tan-Sang Ha, Jakub Lokoc, Ajay Joneja, and Sai-Kit Yeung, **"Marine Video Kit: A New Marine Video Dataset for Content-based Analysis and Retrieval",** 29th International Conference on Multimedia Modeling (MMM), 2023 **(Oral)**. (Link)

2022 **Tuan-Anh Vu**, Duc-Thanh Nguyen, Binh-Son Hua, Quang-Hieu Pham and Sai-Kit Yeung, **"RFNet-4D: Joint Object Reconstruction and Flow Estimation from 4D Point Clouds",** Proceeding of European Conference on Computer Vision (ECCV), 2022 **(Oral - acceptance rate of 2.7% of 5,803 submissions)**. (Link)

2022 Yingshu Chen, **Tuan-Anh Vu**, Binh-Son Hua and Sai-Kit Yeung, **"Time-of-Day Neural Style Transfer for Architectural Photographs",** IEEE International Conference on Computational Photography (ICCP), 2022 **(Oral)**. (Link)

2020 Long Hoang Pham, Hung Ngoc Phan, Nhat Minh Chung, **Tuan-Anh Vu** and Synh Viet-Uyen Ha, **"A Robust Multi-class Vehicle Detection and Classification Algorithm for Traffic Surveillance System,"** 2020 IEEE International Conference on Computing and Communication Technologies (RIVF) **(Oral)**. (Link)

2019 **Tuan-Anh Vu**, Hung Ngoc Phan, Tu Kha Huynh, and Synh Viet-Uyen Ha, **"An Improved Occlusion Detection with Constraints Approach for Video Processing,"** 2018 International Conference on Industrial Networks and Intelligent Systems (INISCOM 2018) **(Oral)**. (Link)

2018 **Tuan-Anh Vu**, Long Hoang Pham, Tu Kha Huynh, and Synh Viet-Uyen Ha, **"Vehicle Classification in Nighttime using Headlights Trajectories Matching,"** 2017 International Conference on Information System Design Intelligent Applications (INDIA 2017) **(Oral)**. (Link)

2017 **Tuan-Anh Vu**, Long Hoang Pham, Tu Kha Huynh, and Synh Viet-Uyen Ha, **"Nighttime Vehicle Detection and Classification via Headlights Trajectories Matching,"** 2017 IEEE International Conference on System Science and Engineering (ICSSE 2017) **(Oral)**. (Link)

Preprints

2023 **Tuan-Anh Vu**, Hai Nguyen-Truong, Binh-Son Hua, and Sai-Kit Yeung, **"TransCues: Integrating Boundary and Reflection Cues to Pyramidal Vision Transformer for Transparent Object Segmentation",** under review.

2023 **Tuan-Anh Vu***, Srinjay Soumitra Sarkar*, Binh-Son Hua, Zhiyuan Zhang and Sai-Kit Yeung, **"Test-Time Augmentation for 3D Point Cloud Classification and Segmentation",** under review.

2023 Hai Nguyen-Truong*, E-Ro Nguyen*, **Tuan-Anh Vu**, Minh-Triet Tran, and Sai-Kit Yeung, **"PDF: Positional Prior and Deep Multimodal Fusion for Referring Expression Segmentation",** under review.

2023 Yingshu Chen, **Tuan-Anh Vu**, Ka-Chun Shum, Zhihao Liu, Huajian Huang, Haixin Liang and Sai-Kit Yeung, **"3D ToD Stylization: Time-of-day Style Transfer for 3D Architectural Scenes",** under review.

Experiences

2023 - now **Research Internship**, Centre for Frontier AI Research, A*STAR

2021 - now **Reviewer**, ICCV 2023, CVPR 2022 - 2023, ECCV 2022, WACV 2022 - 2023, ACCV 2022, ICME 2023, IET Computer Vision 2021

2020 - now **Teaching Assistant**, Department of Computer Science and Engineering, HKUST

2017 - 2019 **Teaching Assistant**, School of Computer Science and Engineering, HCMIU-VNU

2015 - 2019 **Research Assistant**, School of Computer Science and Engineering, HCMIU-VNU

HONORS & AWARDS

Jan 2023 **2nd Place**, USV-based Obstacle Segmentation Challenge at WACV Workshop on Maritime Computer Vision

Dec 2022 **ARAP Research Award**, Centre for Frontier AI Research, A*STAR

Nov 2022 **UGC Research Travel Grant**, Hong Kong University of Science and Technology (for attending ECCV 2022)

June 2022 **Travel Grant**, EPFL CIS Edge AI Summer School 2022

Aug 2020 **Best Poster Award**, Machine Learning Summer School Indonesia (MLSS-Indo) 2020

2019 - 2024 **Postgraduate Scholarship**, Hong Kong University of Science and Technology

Jul 2019 **Scholarship for SENG Summer Camp for Elite Students**, Hong Kong University of Science and Technology

2017 **Scholarship for Master by Research program in Information Technology**, HCMIU-VNU

2014 - 2015 **Scholarship for Excellent Academic Performance**, HCMIU-VNU

Skills

Languages Vietnamese (native), English (fluent), Cantonese (beginner)

Programming Python, C/C++, Java, HTML/CSS, ...

Frameworks Pytorch, TensorFlow, OpenCV, Qt, OpenGL, WebGL, ...

REFERENCES

Assoc. Prof. Sai-Kit Yeung
Division of Integrative Systems and Design (ISD)
Department of Computer Science and Engineering (CSE)
The Hong Kong University of Science and Technology
Email: saikit@ust.hk

Dr. Binh-Son Hua
Research Scientist
VinAI Research
Email: binhson.hua@gmail.com

Senior Lecturer Duc Thanh Nguyen
School of Information Technology
Deakin University
Email: duc.nguyen@deakin.edu.au

Dr. Quang-Hieu Pham
Research Scientist
Woven Planet North America, Level 5
Email: pqhieu1192@gmail.com