

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). ([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). ([Link](#))

2018 **Tuan-Anh Vu**, Long Hoang Pham, Tu Kha Huynh, and Synh Viet-Uyen Ha, “Vehicle Classification in Night-time using Headlights Trajectories Matching,” 2017 International Conference on Information System Design Intelligent Applications (INDIA 2017). ([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). ([Link](#))

PREPRINTS

2023 **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 with Cross-Attention Spatio-Temporal Features”, TPAMI, in submission.

- 2023 **Tuan-Anh Vu**, Qing Guo, Binh-Son Hua, Ivor W. Tsang, and Sai-Kit Yeung, “**OVISCam: Open-Vocabulary Instance Segmentation for Camouflaged Objects**”, in submission.
- 2023 **Tuan-Anh Vu**, Hai Nguyen-Truong, Binh-Son Hua, Qing Guo, Ivor W. Tsang, 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**, Binh-Son Hua, Minh-Triet Tran, and Sai-Kit Yeung, “**Improving Referring Expression Segmentation using Vision-Guided Text Features**”, 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
- 2023 - 2024 **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