

TUAN-ANH VU

PERSONAL DATA

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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 Nighttime 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

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The Hong Kong University of Science and Technology, HKSAR
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Asst. Prof. Binh-Son Hua

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