

# TUAN-ANH VU

## PERSONAL DATA

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ADDRESS: The Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong  
PHONE: +852 6746 4059  
EMAIL: [tuananh.vu@connect.ust.hk](mailto:tuananh.vu@connect.ust.hk)  
HOMEPAGE: <https://tuananh1007.github.io/>

## EDUCATION

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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

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### 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.

### CONFERENCE/WORKSHOP PAPERS

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**).

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**).

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

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).

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).

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).

### PREPRINT

2022 **Tuan-Anh Vu**, and Sai-Kit Yeung, “**TOS-ViT: Transparent Object Segmentation using Vision Transformer for Robot Navigation in the Wild**”, in submission.

2022 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**”, in submission.

2022 **Tuan-Anh Vu\***, Srinjay Soumitra Sarkar\*, Binh-Son Hua, Zhiyuan Zhang and Sai-Kit Yeung, “**Test-Time Augmentation with Neural Implicit Representation for 3D Classification and Segmentation**”, preprint.

2021 Yingshu Chen, **Tuan-Anh Vu**, Wishmitha Samadhi Mendis and Sai-Kit Yeung, “**3D Stylization: Stylizing Large 3D Scene with RGB Images**”, preprint.

## RESEARCH/WORK EXPERIENCE

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### PROJECT/RESEARCH EXPERIENCE

- 2015 - 2016    **International University research project for student (Principle Investigator)** - Traffic Sign Detection and Recognition in Nighttime in Vietnam
- 2016 - 2017    **International University research project for student (Principle Investigator)** - A Traffic Surveillance System For Detecting And Tracking Vehicles At Nighttime
- 2016 - 2018    **Viet Nam National University research project (Key member)** - Advanced Occlusion Detection Algorithm in Video Processing Applications
- 2016 - 2018    **Ho Chi Minh City People's Committee (Member)** - Piloting Project on Intelligent Traffic System of Ho Chi Minh City
- 2017 - 2018    **Ho Chi Minh City Department of Science (Member)** - Develop Vehicle Detection and Classification Algorithm in Crowded Scene for Traffic Surveillance System
- 2017 - 2018    **International University research project for student (Principle Investigator)** - An Extended Vehicle Classification Algorithm in Traffic Surveillance System Using Principal Component Analysis

### WORK EXPERIENCE

- 2021 - NOW    **Reviewer**, CVPR 2022, ECCV 2022, WACV 2022 - 2023, ACCV 2022, IET Computer Vision
- 2020 - NOW    **Teaching Assistant**, Department of Computer Science and Engineering, HKUST
- 2017 - 2019    **Teaching Assistant and Research Assistant**, School of Computer Science and Engineering, HCMIU-VNU

## HONORS & AWARDS

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- 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

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- Languages    Vietnamese (native), English (fluent), Cantonese (beginner)
- Programming    Python, C/C++, Java, HTML/CSS, ...
- Frameworks    Pytorch, TensorFlow, OpenCV, Qt, OpenGL, WebGL, ...

## REFERENCES

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### 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  
Affiliate Assistant Professor, Vin University  
Email: binhson.hua@gmail.com

### Assoc. Prof. 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: pqhieu192@gmail.com