TUAN-ANH VU

PERSONAL DATA

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EDUCATION

2019 - 2024   **Ph.D. in Computer Science and Engineering**, Hong Kong University of Science and Technology
Supervisor: Prof. Sai-Kit Yeung
Dissertation title: Robust Scene Understanding in Challenging Scenarios

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

SELECTED PUBLICATIONS

* denotes equal contribution, # denotes guidance role for juniors or corresponding author

PEER-REVIEWED PAPERS

2024   Ziqiang Zheng, Yiwei Chen, Huimin Zeng, **Tuan-Anh Vu**, Binh-Son Hua, Sai-Kit Yeung, *"MarineInst: A Foundation Model for Marine Image Analysis with Instance Visual Description"*, ECCV'24. **Oral** - 2.3% of 8,585 submissions (Link)

2024   Yingshu Chen, Huajian Huang#, **Tuan-Anh Vu**, Ka-Chun Shum, Sai-Kit Yeung, *"StyleCity: Large-Scale 3D Urban Scenes Stylization"*, ECCV'24, ECCV CV4Metaverse workshop (**Oral**) and US Patent (Filling). (Link)

2024   **Tuan-Anh Vu***, Srinjay Sarkar*, Zhiyuan Zhang, Binh-Son Hua, and Sai-Kit Yeung, *"Test-Time Augmentation for 3D Point Cloud Classification and Segmentation"*, 3DV'24. (Link)

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'23, Limerick. **Oral** (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"*, MMM'23. **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"*, ECCV'22. **Oral** - 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 ICCP'22. **Oral** (Link)

PREPRINTS

2024   **Tuan-Anh Vu**, Hai Nguyen-Truong, Ziqiang Zheng, Binh-Son Hua#, Qing Guo#, Ivor W. Tsang, and Sai-Kit Yeung, *"Power of Boundary and Reflection: Semantic Transparent Object Segmentation using Pyramid Vision Transformer with Transparent Cues"*, ECCV'24 TRICKY workshop and IEEE TIP (under review). (Link)

2024   **Tuan-Anh Vu**, Duc-Thanh Nguyen#, Nhat Minh Chung, Qing Guo#, Binh-Son Hua, Ivor W. Tsang, and Sai-Kit Yeung, *"Catch Me If You Can Describe Me: Open-Vocabulary Camouflaged Instance Segmentation with Diffusion"*, ECCV'24 CV4Ecology workshop and IJCV SI Invitation (under review). (Link)

2024   **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"*, IJCV, under review. (Link)

2024   **Tuan-Anh Vu**, Ziqiang Zheng, Chengyang Song, Qing Guo#, Ivor W. Tsang, and Sai-Kit Yeung, *"A Large-Scale Video Dataset for Moving Camouflaged Animals Understanding"*, CVPR'24 CV4Animal and ICLR'25 (under review). (Link)

2024   Hai Nguyen-Truong*, E-Ro Nguyen*, **Tuan-Anh Vu**#, Binh-Son Hua, Minh-Triet Tran, and Sai-Kit Yeung, *"Improving Referring Image Segmentation using Vision-Aware Text Features"*, WACV'25, under review. (Link)

2024   Nhat Minh Chung, Sensen Gao, **Tuan-Anh Vu**, Jie Zhang, Aishan Liu, Yun Lin, Jin Song Dong, Qing Guo, *"Towards Transferable Attacks Against Vision-LLMs in Autonomous Driving with Typography"*, NeurIPS'24, under review. (Link)

2024   Ziqiang Zheng, Jipeng Zhang, **Tuan-Anh Vu**, Shizhe Diao, and Sai-Kit Yeung, *"MarineGPT: Unlocking Secrets of "Ocean" to the Public"*, Nature Machine Intelligence, in submission. (Link)

2023   Ziqiang Zheng, Yiwei Chen, Jipeng Zhang, **Tuan-Anh Vu**, Huimin Zeng, Yue W. Tim, and Sai-Kit Yeung, *"Exploring Boundary of GPT-4V on Marine Analysis: A Preliminary Case Study"*, preprint. (Link)

EXPERIENCES

2024 - NOW	**Organizer**, Computer Vision for Developing Countries (CV4DC) Workshop'24, ACCV'24 ([Website](#))
2023 - NOW	**Research Attachment**, Centre for Frontier AI Research, A*STAR
2021 - NOW	**Conference Reviewer:** CVPR'22-24, ICCV'23, ECCV'22-24, NeurIPS'24, ICLR'25, AAAI'25, AISTATS'25, WACV'22-25, ACCV'22-24, ICME'23
2021 - NOW	**Journal Reviewer:** International Journal of Computer Vision, IEEE Transactions on Multimedia, IEEE Robotics and Automation Letters, IEEE Transactions on Artificial Intelligence, IET Computer Vision, PeerJ Computer Science, Vietnam Journal of Computer Science
2020 - NOW	**Teaching Assistant**, CSE - HKUST (COMP2011, COMP4431, ISDN2300, ISDN2400, ISDN5300, CSIT6000L)
2015 - 2019	**Teaching Assistant** (IT130IU, IT131IU, IT097IU , IT092IU), CSE - HCMIU-VNU
2015 - 2019	**Research Assistant**, CSE - HCMIU-VNU

HONORS & AWARDS

SEPT 2024	**Doctoral Consortium**, ECCV, supervised by Prof. Leonidas Guibas
JUNE 2024	**Doctoral Consortium**, IEEE CAI, supervised by Prof. Ivor Tsang
JAN 2024	**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
JAN 2023	**2nd Place**, USV-based Obstacle Segmentation Challenge at WACV Workshop on Maritime Computer Vision
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

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