XIN SUN   Ph.D. (Prof. Dr.-Ing.)

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Stanford/Elsevier Top 2% Scientists Worldwide 2024

WORKING EXPERIENCE:	**Professor**	**City University of Macao**, Faculty of Data Science, *2024.1-*
	Senior Researcher	**Technical University of Munich**, *Humboldt Experienced Researcher* Artificial Intelligence for Earth Observation, *2022.5- 2023.12*

HONORS AND AWARDS

[1] **Top 2% Scientists Worldwide 2024 by Stanford University**
[2] **Humboldt Research Fellowship for Experienced Researchers 2021**
[3] **Runner-up of the Object Detection Challenge in Vision Meets Drones of ICCV 2019**
[4] **Sino-German (CSC-DAAD) Postdoc Scholarship Program** (2015)
[5] **Scholarship from Erasmus Mundus External Cooperation Window funded by EU**(2012)

THIRD PARTY FUNDED PROJECTS

[1] Science and Technology Development Fund, Macao SAR: AI Interaction Technologies on Digital Twins for Cultural Tourism Experiences, Sep. 2024-Aug. 2027, 2M MOP (Head)
[2] Humboldt Research Fellowship for Experienced Researchers 2021: Deep Learning for Domain Specific Object Detection in Marine Satellite Images, May. 2022-Oct. 2023 (Head)
[3] National Natural Science Foundation of China: Research on Deep Learning Technologies of Object Recognition in Ocean Environments, Jan. 2020-Dec. 2023 (Head)
[4] National Natural Science Foundation of China: Research on Feature Mining and Modeling for Complex Big Oceanic Data and Its Applications, Jan. 2018-Dec. 2018 (Head)

PUBLICATIONS   Journal Publications

[1] Zeju Wu, Kaiming Chen, Panxin Ji, Haoran Zhao, Xin Sun, MSFFT-Net: A multi-scale feature fusion transformer network for underwater image enhancement, Journal of Visual Communication and Image Representation Volume 107, March 2025, 104355
[2] Yuting Yang, Xin Sun, Junyu Dong, Kin-Man Lam, Xiao Xiang Zhu, Attention-ConvNet Network for Ocean Front Prediction via Remote Sensing SST Images, IEEE Transactions on Geoscience and Remote Sensing, vol. 62, pp. 1-16, 2024, no. 4212516.
[3] Xuanchen Zhou, Gengshen Wu, Xin Sun, Pengpeng Hu, Yi Liu, Attention-Based Multi-Kernelized and Boundary-Aware Network for image semantic segmentation, Neurocomputing, Volume 597, 2024, 127988
[4] Fei Zhou, Xin Sun*, Chengze Sun, Junyu Dong and Xiao Xiang Zhu. Adaptive Morphology Filter: A Lightweight Module for Deep Hyperspectral Image Classification, IEEE Transactions on Geoscience and Remote Sensing, vol. 61, pp. 1-16, 2023.
[5] Xin Sun, Yu Zhang, Changrui Chen, Sihang Xie, Junyu Dong. High-order paired-ASPP for deep semantic segmentation networks, Information Sciences, 2023, 119364.
[6] Fei Zhou, Xin Sun, Junyu Dong, Xiao Xiang Zhu. SurroundNet: towards effective low-light image enhancement, Pattern Recognition 141, 109602, 2023

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[7] Xin Sun, Zenghui Song, Yongbo Yu, Junyu Dong, Claudia Plant, Christian Böhm. Network Embedding via Deep Prediction Model, in IEEE Transactions on Big Data, vol.9, no.2, 2023.

[8] Haoran Zhao, Xin Sun*, Junyu Dong, Hui Yu, Gaige Wang, Multi-instance semantic similarity transferring for knowledge distillation, Knowledge-Based Systems, Vol. 256, 2022, 109832.

[9] Xin Sun, Changrui Chen, Xiaorui Wang, Junyu Dong, Huiyu Zhou, Sheng Chen. Gaussian Dynamic Convolution for Efficient Single-Image Segmentation, IEEE Transactions on Circuits and Systems for Video Technology, vol. 32, no. 5, pp. 2937-2948, May 2022.

[10] Qingxuan Lv, Xin Sun*, Changrui Chen, Junyu Dong, Huiyu Zhou. Parallel Complement Network for Real-Time Semantic Segmentation of Road Scenes, IEEE Transactions on Intelligent Transportation Systems, vol. 23, no. 5, pp. 4432-4444, May 2022.

[11] Haoran Zhao, Xin Sun*, Junyu Dong, Changrui Chen and Zihe Dong, Highlight Every Step: Knowledge Distillation via Collaborative Teaching, in IEEE Transactions on Cybernetics, vol. 52, no. 4, pp. 2070-2081, April 2022.

Conference Papers

[12] Li Qian, Jing Qian, Xin Sun, Wengang Guo, and Christian Böhm, ADOD: Adaptive Density Outlier Detection. IEEE International Conference on Data Mining (ICDM) 2024.

[13] Wei Ye, Hao Tian, Shuhao Tang, Xin Sun. Enhancing Shortest-Path Graph Kernels via Graph Augmentation. European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD), 2024.

[14] Changrui Chen, Xin Sun*, Yang Hua, Junyu Dong, Hongwei Xv. Learning Deep Relations to Promote Saliency Detection, Hongwei. Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2020) Oral.

[15] Changrui Chen, Yu Zhang, Qingxuan Lv, Shuo Wei, Xiaorui Wang, Xin Sun*, Junyu Dong. RRNet: A Hybrid Detector for Object Detection in Drone-captured Images. The IEEE International Conference on Computer Vision Workshop (ICCVW), 2019

[16] Xin Sun, Zenghui Song, Junyu Dong, Yongbo Yu, Claudia Plant, Christian Böhm. Network Structure and Transfer Behaviors Embedding via Deep Prediction Model, Thirty-Third AAAI Conference on Artificial Intelligence(AAAI-2019), 2019.1.27-2019.2.1

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