

ZHIYUAN YOU

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Education

- **Ph.D. in Multimedia Lab (MMLab), The Chinese University of Hong Kong** Aug. 2023 -
 - GPA: 3.74/4.0
 - Supervisor: Professor Tianfan Xue & Professor Chao Dong
- **M.Eng. (Honor) in Mechanical Eng., Shanghai Jiao Tong University** Sept. 2020 - Mar. 2023
 - GPA: 3.76/4.0
 - Supervisor: Professor Xinyi Le & Professor Yu Zheng
- **B.Eng. (Honor) in Mechanical Eng., Shanghai Jiao Tong University** Sept. 2016 - Jun. 2020
 - GPA: 89.36/100, Ranking: 5/148
 - Supervisor: Professor Xinyi Le
 - Summer Exchange to *Columbia University* in 2018

Publications

- J. Hu*, **Z. You***, J. Gu, K. Zhu, T. Xue, C. Dong, “Revisiting the Generalization Problem of Low-level Vision Models Through the Lens of Image Deraining,” arXiv preprint arXiv:2502.12600, 2025.
- J. Hu, J. Gu, S. Yu, F. Yu, Z. Li, **Z. You**, C. Lu, C. Dong, “Interpreting Low-level Vision Models with Causal Effect Maps,” IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), 2025.
- **Z. You**, X. Cai, J. Gu, T. Xue, C. Dong, “Teaching Large Language Models to Regress Accurate Image Quality Scores using Score Distribution,” in Proc. of IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2025.
- Z. Chen*, Y. Wang*, X. Cai, **Z. You**, Z. Lu, F. Zhang, S. Guo, T. Xue, “UltraFusion: Ultra High Dynamic Imaging using Exposure Fusion,” in Proc. of IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR, Highlight**), 2025.
- K. Zhu*, J. Gu*, **Z. You**, Y. Qiao, C. Dong, “An Intelligent Agentic System for Complex Image Restoration Problems,” in Proc. of International Conference on Learning Representations (**ICLR**), 2025.
- J. Zhang*, **Z. You***, J. Wang, X. Le, “SAIL: Sample-Centric In-Context Learning for Document Information Extraction,” in Proc. of Association for the Advancement of Artificial Intelligence (**AAAI, Oral**), 2025.
- **Z. You**, J. Gu, Z. Li, X. Cai, K. Zhu, C. Dong, T. Xue, “Descriptive Image Quality Assessment in the Wild,” arXiv preprint arXiv:2405.18842, 2024.
- X. Cai, **Z. You**, H. Zhang, W. Liu, J. Gu, T. Xue, “PhoCoLens: Photorealistic and Consistent Reconstruction in Lensless Imaging,” in Proc. of Annual Conference on Neural Information Processing Systems (**NeurIPS, Spotlight**), 2024.

- **Z. You***, Z. Li*, J. Gu*, Z. Yin, T. Xue, C. Dong, “Depicting Beyond Scores: Advancing Image Quality Assessment through Multi-modal Language Models,” in Proc. of European Conference on Computer Vision (ECCV), 2024.
- J. Liu*, Y. Zhang*, C. Li, **Z. You**, Z. Zhou, C. Yang, Y. Yang, Y. Liu, W. Ouyang, “MaskMA: Towards Zero-Shot Multi-Agent Decision Making with Mask-Based Collaborative Learning,” Transactions on Machine Learning Research (TMLR), 2024.
- **Z. You**, K. Yang, W. Luo, X. Lu, L. Cui, X. Le, “Few-Shot Object Counting with Similarity-Aware Feature Enhancement,” in Proc. of IEEE Winter Conference on Applications of Computer Vision (WACV, **Early Accept**), 2023.
- **Z. You**, L. Cui, Y. Shen, K. Yang, X. Lu, Y. Zheng, X. Le, “A Unified Model for Multi-class Anomaly Detection,” in Proc. of Annual Conference on Neural Information Processing Systems (**NeurIPS, Spotlight**), 2022.
- **Z. You**, K. Yang, W. Luo, L. Cui, Y. Zheng, X. Le, “ADTR: Anomaly Detection Transformer with Feature Reconstruction,” in Proc. of International Conference on Neural Information Processing (**ICONIP, Oral**), 2022.
- **Z. You**, J. Li, H. Zhang, B. Yang, X. Le, “An Accurate Star Identification Approach Based on Spectral Graph Matching for Attitude Measurement of Spacecraft,” Complex & Intelligent Systems, 8(2), pp.1639-1652, 2022.
- L. Chen, **Z. You**, N. Zhang, J. Xi, X. Le, “UTRAD: Anomaly Detection and Localization with U-Transformer,” Neural Networks, 147, pp.53-62, 2022.

Services

• Journal Reviewer

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- International Journal of Computer Vision (IJCV)
- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Multimedia (TMM)
- IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- IEEE Transactions on Systems, Man and Cybernetics: Systems (TSMCS)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- Pattern Recognition (PR)
- Knowledge Based Systems (KBS)
- Journal of Intelligent Manufacturing
- Neurocomputing
- Measurement

• Conference Reviewer

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024, 2025
- International Conference on Computer Vision (ICCV), 2025
- Annual Conference on Neural Information Processing Systems (NeurIPS), 2024, 2025
- International Conference on Learning Representations (ICLR), 2025
- International Conference on Machine Learning (ICML), 2025
- International Conference on Artificial Intelligence and Statistics (AISTATS), 2025

Honors and Awards

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| • Excellent Master Dissertation | 2023 |
| • Outstanding Graduate (Postgraduate) | 2023 |
| • National Scholarship | 2022 |
| • Outstanding Graduate (Undergraduate) | 2020 |
| • ABB Scholarship | 2017, 2018, 2019 |
| • Tingya Scholarship | 2019 |

Teaching

- | | |
|---|------------------------|
| • Teaching Assistant, The Chinese University of Hong Kong
– Course: IERG4210, Web Programming and Security. | Jan. 2025 - May. 2025 |
| • Teaching Assistant, The Chinese University of Hong Kong
– Course: IERG4230, Introduction to Internet of Things. | Sept. 2024 - Dec. 2024 |
| • Teaching Assistant, The Chinese University of Hong Kong
– Course: IERG2051, Signals and Systems. | Sept. 2024 - Dec. 2024 |
| • Teaching Assistant, The Chinese University of Hong Kong
– Course: IERG4160, Image and Video Processing. | Jan. 2024 - May. 2024 |
| • Teaching Assistant, The Chinese University of Hong Kong
– Course: ENGG2720, Complex Variables for Engineers. | Sept. 2023 - Dec. 2023 |
| • Teaching Assistant, Shanghai Jiao Tong University
– Course: ME28009, Dynamic Programming and Optimal Control. | Sept. 2020 - Jan. 2021 |