Nomination Portfolio for Prof. Mingqiang Wei

February, 2025

1 Personal Background

1.1 Personal Profile

Dr. Mingqiang Wei is currently a Professor and the Dean of the School of Artificial Intelligence at Taiyuan University of Technology, Taiyuan, China. He also serves as the Deputy Director of the Key Laboratory of Brain-Computer Intelligent Technology (Ministry of Education, China) and the Executive Director of the Jiangsu Intelligent Manufacturing Engineering Society, China. He has received numerous prestigious awards, including the *Outstanding Youth Fund of National Natural Science Foundation of China (2023)*, the Youth Science and



Technology Award of Jiangsu Computer Society (2021), the Young Scientist Award of Jiangsu Aerospace Society (2024), and the *Best Paper Award* at the 14th Conference of Chinagraph (2022). Dr. Wei earned his PhD of Computer Science and Engineering under the supervision of Prof. Pheng-Ann Heng at The Chinese University of Hong Kong and was honored with the *Best PhD Dissertation Award* in 2014. He has published over 150 papers in top-tier journals and conferences, including *IEEE TPAMI*, *TIP*, *TVCG*, *SIGGRAPH*, *IJCV*, *CVPR*, *ICCV*, *IJCAI*, and *AAAI*.

He is currently an <u>Associate Editor</u> for <u>ACM Transactions on Multimedia Computing</u>, <u>Communications</u>, <u>and Applications (ACM TOMM)</u>. He has been appointed as the <u>General Chair</u> of <u>the 24th International Conference on Cyberworlds (CW 2025)</u>, which will be hosted by Taiyuan University of Technology in China from October 14–16, 2025. He also served as the <u>Leading Guest Editor</u> for special issues on "<u>Point Cloud Processing and Understanding</u>" in IEEE Transactions on Multimedia, and "<u>Deep Learning for 3D Segmentation</u>" in The Visual Computer. He also serves as a regular program committee member for prestigious international conferences, including ICCV, CVPR, IJCAI, AAAI, NeurIPS, ECCV, ACCV, and ICML.

His research interests lie in 3D Vision, Computer Vision, Geometric Deep Learning, 3D LiDAR Data Processing, and Large Language Models (LLMs).

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1.2 Membership and Services

A. Scientific Committee

- IEEE Senior Member
- CCF Member
- ACM Member
- General Chair of the 24th International Conference on Cyberworlds (CW 2025)
- Executive Director of the Jiangsu Intelligent Manufacturing Engineering Society
- Member of LiDAR Professional Committee, Chinese National Committee of International Society for Digital Earth (CNISDE-LiDAR) (2022-2026)
- Member of China Society of Image and Graphics 3D Computer Vision (CSIG 3DV) (2020-2026)

B. Editor Board

- ACM Transactions on Multimedia Computing, Communications, and Applications (2020-present)
- The Visual Computer (2021-2024)
- Journal of Electronic Imaging (2020-2022)

C. Guest Editor

- IEEE Transactions on Multimedia (IEEE TMM), 2021, special issue "Point Cloud Processing and Understanding"
- The Visual Computer (TVC), 2022, special issue "Deep Learning for 3D Segmentation"
- Mathematics, 2023, special issue on "New Trends of Machine Learning Applications in Computer Graphics and Image Processing"

D. Organizing Committee

- The 16th-19th CCF CAD/CG, 2021-2024
- Computer Graphics International, 2023
- The 7th China LiDAR Conference, 2021

E. Reviewer for Funding

• National Natural Science Foundation of China (NSFC)

F. Chair of Conference

• The 24th International Conference on Cyberworlds (CW 2025)

G. Session Chair

- The 6th China LiDAR Conference, 2020, "LiDAR applications in transportation industry"
- The 7th China LiDAR Conference, 2021
- CCF CAD/CG, 2021, 2023

H. Reviewer

ACM Transactions on Graphics, IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Image Processing, IEEE Transactions on Visualization and Computer Graphics, IEEE Transactions on Automation Science and Engineering, IEEE Transactions on Multimedia, IEEE Transactions on Circuits and Systems for Video Technology, IEEE Transactions on Geosciences and Remote Sensing (TGRS), International Journal of Computer Vision, Nature Communications, Computer-Aided Design, The ISPRS Journal of Photogrammetry and Remote Sensing,

IEEE Transactions on Intelligent Transportation Systems (TITS), IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS), International Journal of Applied Earth Observation and Geoinformation (JAG), Neurocomputing, etc.

1.3 Research Interests

3D Vision, Computer Vision, Geometric Deep Learning, 3D LiDAR Data Processing, Remote Sensing, and Large Language Models (LLMs)

1.4 Education

- 2011.09-2014.10 **Chinese University of Hong Kong**, Computer Science and Engineering, PhD (Best PhD Dissertation Award 2014)
- 2008.09-2011.06 Nanjing Normal University, Educational Technology, Master (Best Master Dissertation Award 2011)
- 2004.09-2008.06 Anqing Normal University, Educational Technology, Bachelor

1.5 Work Experience

- 1. 2024.08-present Taiyuan University of Technology, Professor and Dean of School of Artificial Intelligence
- 2. 2021.06-2024.07 Nanjing University of Aeronautics and Astronautics, Professor
- 3. 2017.04-2021.05 Nanjing University of Aeronautics and Astronautics, Associate Professor
- 4. 2015.10-2017.04 Hefei University of Technology, Assistant Professor
- 5. 2014.10-2015.10 The Chinese University of Hong Kong, Postdoctoral Researcher

1.6 Representative Grants

- [1] 2021-2025 National Natural Science Foundation of China Key Project, *Deep Learning Theories and Methods for 3D Object Analysis and Generation*, No. 62032011, **Co-Principal Investigator** (Nanjing University-Nanjing University of Aeronautics and Astronautics-Zhejiang University), RMB 2,960,000
- [2] 2024-2026 National Natural Science Foundation of China Outstanding Youth Fund, *Geometric Processing and Analysis of Large-scale Aviation Equipment Shapes*, No. T2322012, **Principal Investigator**, RMB 2,000,000
- [3] 2022-2025 National Natural Science Foundation of China General Project, *Research* on Large-scale Point Cloud Geometric Deep Learning for Large Aircraft Shape Analysis, No. 62172218, Principal Investigator, RMB 580,000
- [4] 2016-2018 National Natural Science Foundation of China Youth Project, *Research* on Key Technologies for Digital Restoration of Missing Parts of Bronzes, No. 61502137, Principal Investigator, RMB 210,000
- [5] 2020-2021 Key Project of Culture and Tourism Research of Jiangsu Province, *Point Cloud Processing for Outdoor Scene Cultural Heritage Protection*, No. 20ZD06, **Principal Investigator**, RMB 80,000
- [6] 2021-2023 Central Government Supported Local Free Exploration Project, *Research*

- on Aircraft Geometric Analysis Driven by Point Clouds, No. 2021Szvup060, Principal Investigator, RMB 200,000
- [7] 2022-2024 Shenzhen Natural Foundation, *Research on Key Technologies for Semantic Understanding under Weak Supervision of Large-scale Point Clouds*, No. JCYJ20220530172403007, **Principal Investigator**, RMB 300,000

2 Publications of Mingqiang Wei

He has published over 150 papers in top-tier journals and conferences, including *IEEE TPAMI*, *TIP*, *TVCG*, *SIGGRAPH*, *IJCV*, *CVPR*, *ICCV*, *IJCAI*, and *AAAI*. These papers cover the research areas of *3D Vision and Graphics*, *Computer Vision and Image Processing*, *Remote Sensing*, *Computer-Aided Design*, and *Medical Imaging*.

2.1 Papers on 3D Vision and Graphics

- [1] Yun Liu, Peng Li, Xuefeng Yan, Liangliang Nan, Bin Wang, Honghua Chen, Lina Gong, Wei Zhao, **Mingqiang Wei**: PointCG: Self-supervised Point Cloud Learning via Joint Completion and Generation. IEEE Transactions on Visualization and Computer Graphics, 1-15, 2025
- [2] Zeyong Wei, Honghua Chen, Liangliang Nan, Jun Wang, Jing Qin, Mingqiang Wei: PathNet: Path-Selective Point Cloud Denoising. IEEE Trans. Pattern Anal. Mach. Intell. 46(6): 4426-4442 (2024)
- [3] Xin Li, **Mingqiang Wei**, Songcan Chen: PointSmile: Point self-supervised learning via curriculum mutual information, Science China Information Sciences 67 (11), 212104
- [4] Honghua Chen, Zhiqi Li, **Mingqiang Wei**, Jun Wang: Geometric and Learning-Based Mesh Denoising: A Comprehensive Survey. ACM Trans. Multim. Comput. Commun. Appl. 20(3): 85:1-85:28 (2024)
- [5] Zhe Zhu, Liangliang Nan, Haoran Xie, Honghua Chen, Jun Wang, **Mingqiang Wei**, Jing Qin: CSDN: Cross-Modal Shape-Transfer Dual-Refinement Network for Point Cloud Completion. IEEE Trans. Vis. Comput. Graph. 30(7): 3545-3563 (2024)
- [6] Changfeng Ma, Yang Yang, Jie Guo, **Mingqiang Wei**, Chongjun Wang, Yanwen Guo, Wenping Wang: Collaborative Completion and Segmentation for Partial Point Clouds With Outliers. IEEE Trans. Vis. Comput. Graph. 30(9): 6118-6129 (2024)
- [7] Lipeng Gu, Xuefeng Yan, Peng Cui, Lina Gong, Haoran Xie, Fu Lee Wang, Jing Qin, **Mingqiang Wei**: PointSee: Image Enhances Point Cloud. IEEE Trans. Vis. Comput. Graph. 30(9): 6291-6308 (2024)
- [8] Chen Chen, Yisen Wang, Honghua Chen, Xuefeng Yan, Dayong Ren, Yanwen Guo, Haoran Xie, Fu Lee Wang, **Mingqiang Wei**: GeoSegNet: point cloud semantic segmentation via geometric encoder-decoder modeling. Vis. Comput. 40(8): 5107-5121 (2024)
- [9] Dayong Ren, Jiawei Li, Zhengyi Wu, Jie Guo, **Mingqiang Wei**, Yanwen Guo: MFFNet: multimodal feature fusion network for point cloud semantic segmentation. Vis. Comput. 40(8): 5155-5167 (2024)
- [10] Shengzhou Luo, Jingxing Xu, John Dingliana, **Mingqiang Wei**, Lu Han, Lewei He, Jiahui Pan: Twinenet: coupling features for synthesizing volume

- rendered images via convolutional encoder-decoders and multilayer perceptrons. Vis. Comput. 40(10): 7201-7220 (2024)
- [11] Xianglin Guo, **Mingqiang Wei**: Shape generation via learning an adaptive multimodal prior. Vis. Comput. 40(12): 9191-9205 (2024)
- Yanwen Guo, Yuanqi Li, Dayong Ren, Xiaohong Zhang, Jiawei Li, Liang Pu, Changfeng Ma, Xiaoyu Zhan, Jie Guo, **Mingqiang Wei**, Yan Zhang, Piaopiao Yu, Shuangyu Yang, Donghao Ji, Huisheng Ye, Hao Sun, Yansong Liu, Yinuo Chen, Jiaqi Zhu, Hongyu Liu: LiDAR-Net: A Real-Scanned 3D Point Cloud Dataset for Indoor Scenes. CVPR 2024: 21989-21999
- [13] Haoran Zhou, Honghua Chen, Yingkui Zhang, **Mingqiang Wei**, Haoran Xie, Jun Wang, Tong Lu, Jing Qin, Xiao-Ping Zhang: Refine-Net: Normal Refinement Neural Network for Noisy Point Clouds. IEEE Trans. Pattern Anal. Mach. Intell. 45(1): 946-963 (2023)
- [14] **Mingqiang Wei**, Zeyong Wei, Haoran Zhou, Fei Hu, Huajian Si, Zhilei Chen, Zhe Zhu, Jingbo Qiu, Xuefeng Yan, Yanwen Guo, Jun Wang, Jing Qin: AGConv: Adaptive Graph Convolution on 3D Point Clouds. IEEE Trans. Pattern Anal. Mach. Intell. 45(8): 9374-9392 (2023)
- [15] Jiajia Dai, Xiaoxi Gong, Yida Li, Jun Wang, **Mingqiang Wei**: Self-Supervised Deep Visual Odometry Based on Geometric Attention Model. IEEE Trans. Intell. Transp. Syst. 24(3): 3157-3166 (2023)
- [16] **Mingqiang Wei**, Honghua Chen, Yingkui Zhang, Haoran Xie, Yanwen Guo, Jun Wang: GeoDualCNN: Geometry-Supporting Dual Convolutional Neural Network for Noisy Point Clouds. IEEE Trans. Vis. Comput. Graph. 29(2): 1357-1370 (2023)
- [17] Peng Wu, Lipeng Gu, Xuefeng Yan, Haoran Xie, Fu Lee Wang, Gary Cheng, **Mingqiang Wei**: PV-RCNN++: semantical point-voxel feature interaction for 3D object detection. Vis. Comput. 39(6): 2425-2440 (2023)
- [18] Xin Kong, Shifeng Xia, Ningzhong Liu, **Mingqiang Wei**: GADA-SegNet: gated attentive domain adaptation network for semantic segmentation of LiDAR point clouds. Vis. Comput. 39(6): 2471-2481 (2023)
- [19] Shanshan Li, Pan Gao, Xiaoyang Tan, **Mingqiang Wei**: ProxyFormer: Proxy Alignment Assisted Point Cloud Completion with Missing Part Sensitive Transformer. CVPR 2023: 9466-9475
- [20] Zhaowei Chen, Peng Li, Zeyong Wei, Honghua Chen, Haoran Xie, **Mingqiang Wei**, Fu Lee Wang: Geogen: Geometric Dual-Domain Graph Convolution Network For Point Cloud Denoising. ICASSP 2023: 1-5
- [21] Zhe Zhu, Honghua Chen, Xing He, Weiming Wang, Jing Qin, **Mingqiang** Wei: SVDFormer: Complementing Point Cloud via Self-view Augmentation and Self-structure Dual-generator. ICCV 2023: 14462-14472
- [22] Zhilei Chen, Honghua Chen, Lina Gong, Xuefeng Yan, Jun Wang, Yanwen Guo, Jing Qin, **Mingqiang Wei**: UTOPIC: Uncertainty-aware Overlap Prediction Network for Partial Point Cloud Registration. Comput. Graph. Forum 41(7): 87-98 (2022)
- [23] Anyi Huang, Qian Xie, Zhoutao Wang, Dening Lu, **Mingqiang Wei**, Jun Wang: MODNet: Multi-offset Point Cloud Denoising Network Customized for Multi-scale Patches. Comput. Graph. Forum 41(7): 109-119 (2022)
- [24] Fei Hu, Honghua Chen, Xuequan Lu, Zhe Zhu, Jun Wang, Weiming Wang, Fu Lee Wang, **Mingqiang Wei**: SPCNet: Stepwise Point Cloud Completion

- Network. Comput. Graph. Forum 41(7): 153-164 (2022)
- [25] Haoran Pan, Jun Zhou, Yuanpeng Liu, Xuequan Lu, Weiming Wang, Xuefeng Yan, **Mingqiang Wei**: SO(3)-Pose: SO(3)-Equivariance Learning for 6D Object Pose Estimation. Comput. Graph. Forum 41(7): 371-381 (2022)
- [26] Dayong Ren, Zhengyi Wu, Jiawei Li, Piaopiao Yu, Jie Guo, **Mingqiang Wei**, Yanwen Guo: Point attention network for point cloud semantic segmentation. Sci. China Inf. Sci. 65(9): 1-14 (2022)
- [27] Honghua Chen, Zeyong Wei, Xianzhi Li, Yabin Xu, **Mingqiang Wei**, Jun Wang: RePCD-Net: Feature-Aware Recurrent Point Cloud Denoising Network. Int. J. Comput. Vis. 130(3): 615-629 (2022)
- [28] Zhoutao Wang, Qian Xie, **Mingqiang Wei**, Kun Long, Jun Wang: Multifeature Fusion VoteNet for 3D Object Detection. ACM Trans. Multim. Comput. Commun. Appl. 18(1): 6:1-6:17 (2022)
- [29] Honghua Chen, Zeyong Wei, Yabin Xu, **Mingqiang Wei**, Jun Wang: ImLoveNet: Misaligned Image-supported Registration Network for Low-overlap Point Cloud Pairs. SIGGRAPH (Conference Paper Track) 2022: 29:1-29:9
- [30] Zhongping Ji, Xianfang Sun, Yu-Wei Zhang, Weiyin Ma, **Mingqiang Wei**: Normal manipulation for bas-relief modeling. Graph. Model. 114: 101099 (2021)
- [31] **Mingqiang Wei**, Yidan Feng, Honghua Chen: Selective Guidance Normal Filter for Geometric Texture Removal. IEEE Trans. Vis. Comput. Graph. 27(12): 4469-4482 (2021)
- [32] Haoran Zhou, Yidan Feng, Mingsheng Fang, **Mingqiang Wei**, Jing Qin, Tong Lu: Adaptive Graph Convolution for Point Cloud Analysis. ICCV 2021: 4945-4954
- [33] Honghua Chen, **Mingqiang Wei**, Yangxing Sun, Xingyu Xie, Jun Wang: Multi-Patch Collaborative Point Cloud Denoising via Low-Rank Recovery with Graph Constraint. IEEE Trans. Vis. Comput. Graph. 26(11): 3255-3270 (2020)
- [34] Haoran Zhou, Honghua Chen, Yidan Feng, Qiong Wang, Jing Qin, Haoran Xie, Fu Lee Wang, **Mingqiang Wei**, Jun Wang: Geometry and Learning Co-Supported Normal Estimation for Unstructured Point Cloud. CVPR 2020: 13235-13244
- [35] Sen Deng, **Mingqiang Wei**, Jun Wang, Yidan Feng, Luming Liang, Haoran Xie, Fu Lee Wang, Meng Wang: Detail-recovery Image Deraining via Context Aggregation Networks. CVPR 2020: 14548-14557
- [36] **Mingqiang Wei**, X. Guo, J. Huang, Haoran Xie, Hua Zong, R. Kwan, Fu Lee Wang, Jing Qin: Mesh Defiltering via Cascaded Geometry Recovery. Comput. Graph. Forum 38(7): 591-605 (2019)
- [37] Yangxing Sun, Honghua Chen, Jing Qin, Hongwei Li, **Mingqiang Wei**, Hua Zong: Reliable Rolling-guided Point Normal Filtering for Surface Texture Removal. Comput. Graph. Forum 38(7): 721-732 (2019)
- [38] Xianglin Guo, Xingyu Xie, Guangcan Liu, **Mingqiang Wei**, Jun Wang: Robust Low-rank subspace segmentation with finite mixture noise. Pattern Recognit. 93: 55-67 (2019)
- [39] **Mingqiang Wei**, Yang Tian, Wai-Man Pang, Charlie C. L. Wang, Ming-Yong Pang, Jun Wang, Jing Qin, Pheng-Ann Heng: Bas-Relief Modeling

- from Normal Layers. IEEE Trans. Vis. Comput. Graph. 25(4): 1651-1665 (2019)
- [40] **Mingqiang Wei**, Jin Huang, Xingyu Xie, Ligang Liu, Jun Wang, Jing Qin: Mesh Denoising Guided by Patch Normal Co-Filtering via Kernel Low-Rank Recovery. IEEE Trans. Vis. Comput. Graph. 25(10): 2910-2926 (2019)
- [41] Jidong Wang, Jiajia Dai, Kin-Sum Li, Jun Wang, **Mingqiang Wei**, Mingyong Pang: Cost-effective printing of 3D objects with self-supporting property. Vis. Comput. 35(5): 639-651 (2019)
- [42] Wuyuan Xie, Miaohui Wang, **Mingqiang Wei**, Jianmin Jiang, Jing Qin: Surface Reconstruction From Normals: A Robust DGP-Based Discontinuity Preservation Approach. CVPR 2019: 5328-5336
- [43] Qian Xie, Oussama Remil, Yanwen Guo, Meng Wang, **Mingqiang Wei**, Jun Wang: Object Detection and Tracking Under Occlusion for Object-Level RGB-D Video Segmentation. IEEE Trans. Multim. 20(3): 580-592 (2018)
- [44] **Mingqiang Wei**, Luming Liang, Wai-Man Pang, Jun Wang, Weishi Li, Huisi Wu: Tensor Voting Guided Mesh Denoising. IEEE Trans Autom. Sci. Eng. 14(2): 931-945 (2017)
- [45] **Mingqiang Wei**, Jinze Yu, Wai-Man Pang, Jun Wang, Jing Qin, Ligang Liu, Pheng-Ann Heng: Bi-Normal Filtering for Mesh Denoising. IEEE Trans. Vis. Comput. Graph. 21(1): 43-55 (2015)
- [46] **Mingqiang Wei**, Yichen Li, Jianhuang Wu, Mingyong Pang: ESimp: Error-Controllable Simplification with Feature Preservation for Surface Reconstruction. CW 2011: 77-84
- [47] **Mingqiang Wei**, Ming-Yong Pang, Zhi-Geng Pan: Optimizing Triangulation of Implicit Surface Based on Quadric Error Metrics. CW 2010: 113-119

2.2 Papers on Computer Vision and Image Processing

- [1] Dong Liang, Zhengyan Xu, Ling Li, **Mingqiang Wei**, Songcan Chen: PIE: Physics-Inspired Low-Light Enhancement. Int. J. Comput. Vis. 132(9): 3911-3932 (2024)
- Yihua Fan, Yongzhen Wang, Dong Liang, Yiping Chen, Haoran Xie, Fu Lee Wang, Jonathan Li, **Mingqiang Wei**: Low-FaceNet: Face Recognition-Driven Low-Light Image Enhancement. IEEE Trans. Instrum. Meas. 73: 1-13 (2024)
- [3] Wenyin Tao, Xuefeng Yan, Yongzhen Wang, **Mingqiang Wei**: MFFDNet: Single Image Deraining via Dual-Channel Mixed Feature Fusion. IEEE Trans. Instrum. Meas. 73: 1-13 (2024)
- [4] Yongzhen Wang, Xuefeng Yan, Fu Lee Wang, Haoran Xie, Wenhan Yang, Xiao-Ping Zhang, Jing Qin, **Mingqiang Wei**: UCL-Dehaze: Toward Real-World Image Dehazing via Unsupervised Contrastive Learning. IEEE Trans. Image Process. 33: 1361-1374 (2024)
- [5] Baian Chen, Zhilei Chen, Xiaowei Hu, Jun Xu, Haoran Xie, Jing Qin, Mingqiang Wei: Dynamic Message Propagation Network for RGB-D and Video Salient Object Detection. ACM Trans. Multim. Comput. Commun. Appl. 20(1): 18:1-18:21 (2024)
- [6] Ming Tong, Xuefeng Yan, Yongzhen Wang, **Mingqiang Wei**: Semi-UFormer: Semi-supervised Uncertainty-aware Transformer for Image

- Dehazing. IJCNN 2024: 1-8
- [7] Yu Zhao, Lina Gong, Zhiqiu Huang, Yongwei Wang, **Mingqiang Wei**, Fei Wu: Coding-PTMs: How to Find Optimal Code Pre-trained Models for Code Embedding in Vulnerability Detection? ASE 2024: 1732-1744
- [8] Tianyue Sun, Lina Gong, Jingxuan Zhang, **Mingqiang Wei**: An Empirical Study on the Characteristics of Connected Knowledge Subgraphs on Stack Overflow. QRS Companion 2024: 64-73
- [9] Yiyang Shen, Rongwei Yu, Ni Shu, Jing Qin, **Mingqiang Wei**: HLA-HOD: Joint High-Low Adaptation for Object Detection in Hazy Weather Conditions. Int. J. Intell. Syst. 2023: 1-15 (2023)
- [10] Jingjing Wang, Haoran Xie, Fu Lee Wang, Lap-Kei Lee, **Mingqiang Wei**: Jointly modeling intra- and inter-session dependencies with graph neural networks for session-based recommendations. Inf. Process. Manag. 60(2): 103209 (2023)
- [11] Qiqi Ding, Peng Li, Xuefeng Yan, Ding Shi, Luming Liang, Weiming Wang, Haoran Xie, Jonathan Li, **Mingqiang Wei**: CF-YOLO: Cross Fusion YOLO for Object Detection in Adverse Weather With a High-Quality Real Snow Dataset. IEEE Trans. Intell. Transp. Syst. 24(10): 10749-10759 (2023)
- Yongzhen Wang, Jiamei Xiong, Xuefeng Yan, **Mingqiang Wei**: USCFormer: Unified Transformer With Semantically Contrastive Learning for Image Dehazing. IEEE Trans. Intell. Transp. Syst. 24(10): 11321-11333 (2023)
- [13] Lina Gong, Jingxuan Zhang, **Mingqiang Wei**, Haoxiang Zhang, Zhiqiu Huang: What Is the Intended Usage Context of This Model? An Exploratory Study of Pre-Trained Models on Various Model Repositories. ACM Trans. Softw. Eng. Methodol. 32(3): 69:1-69:57 (2023)
- [14] Lina Gong, Haoxiang Zhang, Jingxuan Zhang, **Mingqiang Wei**, Zhiqiu Huang: A Comprehensive Investigation of the Impact of Class Overlap on Software Defect Prediction. IEEE Trans. Software Eng. 49(4): 2440-2458 (2023)
- [15] Yongyuan Li, Xiuyuan Qin, Chao Liang, **Mingqiang Wei**: HDTR-Net: A Real-Time High-Definition Teeth Restoration Network for Arbitrary Talking Face Generation Methods. PRCV (11) 2023: 89-103
- [16] Chengyu Zheng, Ding Shi, Xuefeng Yan, Dong Liang, **Mingqiang Wei**, Xin Yang, Yanwen Guo, Haoran Xie: GlassNet: Label Decoupling-based Three-stream Neural Network for Robust Image Glass Detection. Comput. Graph. Forum 41(1): 377-388 (2022)
- [17] Jie Wang, Yongzhen Wang, Yidan Feng, Lina Gong, Xuefeng Yan, Haoran Xie, Fu Lee Wang, **Mingqiang Wei**: Contrastive Semantic-Guided Image Smoothing Network. Comput. Graph. Forum 41(7): 335-346 (2022)
- Yiyang Shen, Yongzhen Wang, **Mingqiang Wei**, Honghua Chen, Haoran Xie, Gary Cheng, Fu Lee Wang: Semi-MoreGAN: Semi-supervised Generative Adversarial Network for Mixture of Rain Removal. Comput. Graph. Forum 41(7): 443-454 (2022)
- [19] Yongzhen Wang, Xuefeng Yan, Kaiwen Zhang, Lina Gong, Haoran Xie, Fu Lee Wang, **Mingqiang Wei**: TogetherNet: Bridging Image Restoration and Object Detection Together via Dynamic Enhancement Learning. Comput. Graph. Forum 41(7): 465-476 (2022)
- [20] Peng Li, Xuefeng Yan, Hongwei Zhu, Mingqiang Wei, Xiao-Ping Zhang,

- Jing Qin: FindNet: Can You Find Me? Boundary-and-Texture Enhancement Network for Camouflaged Object Detection. IEEE Trans. Image Process. 31: 6396-6411 (2022)
- Yongzhen Wang, Xuefeng Yan, Donghai Guan, **Mingqiang Wei**, Yiping Chen, Xiao-Ping Zhang, Jonathan Li: Cycle-SNSPGAN: Towards Real-World Image Dehazing via Cycle Spectral Normalized Soft Likelihood Estimation Patch GAN. IEEE Trans. Intell. Transp. Syst. 23(11): 20368-20382 (2022)
- [22] Yidan Feng, Sen Deng, Xuefeng Yan, Xin Yang, **Mingqiang Wei**, Ligang Liu: Easy2Hard: Learning to Solve the Intractables From a Synthetic Dataset for Structure-Preserving Image Smoothing. IEEE Trans. Neural Networks Learn. Syst. 33(12): 7223-7236 (2022)
- [23] Dong Liang, Ling Li, **Mingqiang Wei**, Shuo Yang, Liyan Zhang, Wenhan Yang, Yun Du, Huiyu Zhou: Semantically Contrastive Learning for Low-Light Image Enhancement. AAAI 2022: 1555-1563
- [24] Hongwei Zhu, Peng Li, Haoran Xie, Xuefeng Yan, Dong Liang, Dapeng Chen, **Mingqiang Wei**, Jing Qin: I Can Find You! Boundary-Guided Separated Attention Network for Camouflaged Object Detection. AAAI 2022: 3608-3616
- Yiyang Shen, Yidan Feng, Weiming Wang, Dong Liang, Jing Qin, Haoran Xie, **Mingqiang Wei**: MBA-RainGAN: A Multi-Branch Attention Generative Adversarial Network for Mixture of Rain Removal. ICASSP 2022: 3418-3422
- [26] Yuwen Deng, Donghai Guan, Yanyu Chen, Weiwei Yuan, Jiemin Ji, Mingqiang Wei: Sar-Shipnet: Sar-Ship Detection Neural Network via Bidirectional Coordinate Attention and Multi-Resolution Feature Fusion. ICASSP 2022: 3973-3977
- Yidan Feng, Biqi Yang, Xianzhi Li, Chi-Wing Fu, Rui Cao, Kai Chen, Qi Dou, **Mingqiang Wei**, Yun-Hui Liu, Pheng-Ann Heng: Towards Robust Part-aware Instance Segmentation for Industrial Bin Picking. ICRA 2022: 405-411
- [28] Luming Liang, Seng Deng, Lionel Gueguen, Mingqiang Wei, Xinming Wu, Jing Qin: Convolutional neural network with median layers for denoising salt-and-pepper contaminations. Neurocomputing 442: 26-35 (2021)
- [29] Meili Wang, Li Wang, Tao Jiang, Nan Xiang, Juncong Lin, **Mingqiang Wei**, Xiaosong Yang, Taku Komura, Jian J. Zhang: Bas-relief modelling from enriched detail and geometry with deep normal transfer. Neurocomputing 453: 825-838 (2021)
- [30] Chong Liu, Yidan Feng, Cui Yang, **Mingqiang Wei**, Jun Wang: Multi-scale selective image texture smoothing via intuitive single clicks. Signal Process. Image Commun. 97: 116357 (2021)
- [31] Dong Liang, Yun Du, Han Sun, Liyan Zhang, Ningzhong Liu, **Mingqiang Wei**: Nlkd: Using Coarse Annotations For Semantic Segmentation Based on Knowledge Distillation. ICASSP 2021: 2335-2339
- [32] Qian Xie, Yu-Kun Lai, Jing Wu, Zhoutao Wang, Dening Lu, **Mingqiang** Wei, Jun Wang: VENet: Voting Enhancement Network for 3D Object Detection. ICCV 2021: 3692-3701
- [33] Sen Deng, Yidan Feng, **Mingqiang Wei**, Haoran Xie, Yiping Chen, Jonathan

- Li, Xiao-Ping Zhang, Jing Qin: Direction-aware Feature-level Frequency Decomposition for Single Image Deraining. IJCAI 2021: 650-656
- [34] Guibao Shen, Yingkui Zhang, Jialu Li, **Mingqiang Wei**, Qiong Wang, Guangyong Chen, Pheng-Ann Heng: Learning Regularizer for Monocular Depth Estimation with Adversarial Guidance. ACM Multimedia 2021: 5222-5230
- [35] Lei Zhu, Chi-Wing Fu, Yueming Jin, **Mingqiang Wei**, Jing Qin, Pheng-Ann Heng: Non-Local Sparse and Low-Rank Regularization for Structure-Preserving Image Smoothing. Comput. Graph. Forum 35(7): 217-226 (2016)

2.3 Papers on Computer-Aided Design

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