Yuexin Ma

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Homepage

Google scholar (4000+ citation)



·Work Experience·

O9. 2020 – present ShanghaiTech University
Assistant Professor/Ph.D. Advisor in School of Information Science and Technology
Founder of 4DV Lab, including 3 PhD students, 12 master students, and 1 research assistant.

- 10. 2019 – 09.2020 **Hong Kong Baptist University Research Assistant Professor** in the Department of Computer Science

·Education ·

- 08. 2015 – 08. 2019 The University of Hong Kong (HKU)

PhD in Computer Science

Supervisor: Prof. Wenping Wang (IEEE/ACM Fellow)

- 09. 2011 – 06. 2015 **Shandong University (SDU)**

Bachelor's degree in Software Engineering

·Research Interest·

3D Vision: Scene Understanding, Scene Generation, Multi-modal Perception

Robotics: Embodied AI, Humanoid robotics, Autonomous Driving

·Research Experience·

Robotic and Autonomous Driving Lab (RAL) of Baidu

Advisor: Ruigang Yang (Chief Scientist and Head of Baidu RAL)

Visiting Scholar

04.2018 - 12.2018

- The University of North Carolina at Chapel Hill (UNC)

Advisor: Dinesh Manocha (ACM Fellow, IEEE Fellow, AAAS Fellow, AAAI Fellow)

Visiting Scholar 09.2017 - 02.2018

- French Institute for Research in Computer Science and Automation (INRIA)

Advisor: Sylvain Lefebvre (Researcher of INRIA)

Visiting Scholar 06.2016 - 08.2016

·Teaching·

- Computer Graphics II, graduate course
- Introduction to Programming (C&C++), undergraduate course
- Smart Vehicles, graduate course

- Advanced Computer Vision, graduate course

	·Academic Service·	_
_	Area Chair of International Conference on Computer Vision (ICCV)	2025
_	Area Chair of Vision and Learning Seminar of China (VALSE)	2024,2025
_	Area Chair of Chinese Conference on Pattern Recognition and Computer Vision (PRC	· ·
_	Member of CCF Computer Vision Technical Committee	2022-present
_	Member of CSIG 3D Vision Technical Committee	2024-present
-	Member of CSIG Woman Technical Committee	2024-present
	·Awards·	
_	Excellent Research Award of ShanghaiTech University	2023
_	Shanghai Excellent Teaching Achievement (Higher education) first prize	2022
_	First-author paper "TrafficPredict: Trajectory Prediction for Heterogeneous Traffic-Ag	gents" obtained
	Most Influential AAAI Papers of AAAI 2019. Rank 13.	2021.10
-	SemanticKITTI Multi-Scan Semantic Segmentation, rank 1st	2021.01
-	SemanticKITTI Semantic Segmentation, rank 1 st	2020.11
-	SemanticKITTI Panoptic Segmentation, rank 1st	2020.11
-	NuScenes Camera-based 3D Detection, rank 2 nd	2020.12
-	NuScenes LiDAR Semantic Segmentation, rank 2 nd	2020.12
-	Best paper candidate of PCM (Pacific-Rim Conference on Multimedia)	2017.11
	·Honor·	_
_	Shanghai High-level Talents	2021
_	Outstanding Individual of Baidu RAL	2018
_	Best Tutor of the University of Hong Kong	2016
_	Hong Kong PhD Fellowship Award (HKPFS)	2015
_	Presidential Scholarship of Shandong University	2015
_	Google Merit Scholarship	2014
_	CCF (China Computer Federation) Top 100 Outstanding Undergraduates of China	2013
-	National Scholarship of China	2013, 2014

·Publication ·

I have published **more than 70 papers** on top journals and conferences, including 1 Science Robotics paper, 4 TPAMI papers, 19 CVPR papers, 8 AAAI papers, 7 ECCV papers, 4 ICCV papers, 4 IJCAI papers etc. Among them, I am the **first author or corresponding author for 39 papers**.

(* indicates corresponding author)

 Aoru Xue, Yiming Ren, Zining Song, Mao Ye, Xinge Zhu, <u>Yuexin Ma*</u>. FreeCap: Hybrid Calibration-Free Motion Capture in Open Environments. The 39th Annual AAAI Conference on Artificial Intelligence (AAAI), 2025

- Zemin Yang, Yujing Sun, Xidong Peng, Siu Ming Yiu, <u>Yuexin Ma*</u>. UniDemoire: Towards Universal Image Demoireing with Data Generation and Synthesis. The 39th Annual AAAI Conference on Artificial Intelligence (AAAI), 2025
- Yuhang Lu, Yichen Yao, Jiadong Tu, Jiangnan Shao, <u>Yuexin Ma*</u>, Xinge Zhu*. Can LVLMs Obtain a Driver's License? A Benchmark Towards Reliable AGI for Autonomous Driving. The 39th Annual AAAI Conference on Artificial Intelligence (AAAI), 2025
- 4. Chuyang Xiao, Dawei Wang, Xinzheng Tang, Jia Pan, <u>Yuexin Ma*</u>, Optimizing Efficiency of Mixed Traffic through Reinforcement Learning: A Topology-Independent Approach and Benchmark. IEEE International Conference on Robotics & Automation (ICRA), 2025
- Ziyang Yan, Wenzhen Dong, Yihua Shao, Yuhang Lu, Haiyang Liu, Jingwen Liu, Haozhe Wang, Zhe Wang, Yan Wang, Fabio Remondino, <u>Yuexin Ma*</u>, RenderWorld: World Model with Self-Supervised 3D Label. IEEE International Conference on Robotics & Automation (ICRA), 2025
- 6. Jinpeng Li, Haiping Wang, Jiabin Chen, Yuan Liu, Zhiyang Dou, <u>Yuexin Ma</u>, Sibei Yang, Yuan Li, Wenping Wang, Zhen Dong, Bisheng Yang, CityAnchor: City-scale 3D Visual Grounding with Multi-modality LLMs. The International Conference on Learning Representations (ICLR), 2025
- 7. Xiaofei Wu, Tao Liu, Caoji Li, <u>Yuexin Ma</u>, Yujiao Shi, Xuming He, FastGrasp: Efficient Grasp Synthesis with Diffusion. International Conference on 3D Vision (3DV), 2025
- 8. <u>Yuexin Ma</u>, Tai Wang, Xuyang Bai, Huitong Yang, Yuenan Hou, Yaming Wang, Yu Qiao, Ruigang Yang, Xinge Zhu. Vision-Centric BEV Perception: A Survey. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2024
- 9. Yudi Dai, Zhiyong Wang, Xiping Lin, Chenglu Wen, Lan Xu, Siqi Shen, <u>Yuexin Ma</u>, Cheng Wang. HiSC4D: Human-Centered Interaction and 4D Scene Capture in Large-Scale Space Using Wearable IMUs and LiDAR. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2024
- Weixiang Yang, Qi Li, Wenxi Liu, Yuanlong Yu, <u>Yuexin Ma</u>, Shengfeng He, Jia Pan. Monocular BEV Perception of Road Scenes via Front-to-Top View Projection. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2024
- 11. Hongbo Chen, Yuchong Gao, Shuhang Zhang, Jiangjie Wu, <u>Yuexin Ma</u>, Rui Zheng*. RoCoSDF: Row-Column Scanned Neural Signed Distance Fields for Freehand 3D Ultrasound Imaging Shape Reconstruction. Medical Image Computing and Computer Assisted Intervention (MICCAI), 2024 (Best Paper Award)
- 12. Xiao Han, Yiming Ren, Peishan Cong, Yujing Sun, Jingya Wang, Lan Xu, <u>Yuexin Ma*</u>. Gait Recognition in Large-scale Free Environment via Single LiDAR. ACM Multimedia (MM), Oral, 2024 (Best Paper Nomination List)
- 13. Xiao Han, Yiming Ren, Yichen Yao, Yujing Sun, <u>Yuexin Ma*</u>. Towards Practical Human Motion Prediction with LiDAR Point Clouds. ACM Multimedia (MM), Oral, 2024
- 14. Yuhang Lu, Xinge Zhu, Tai Wang*, <u>Yuexin Ma*</u>. OctreeOcc: Efficient and Multi-Granularity Occupancy Prediction Using Octree Queries. NeurIPS, 2024
- 15. Xidong Peng, Runnan Chen, Feng Qiao, Lingdong Kong, Youquan Liu, Yujing Sun, Tai Wang, Xinge Zhu, Yuexin Ma*. Learning to Adapt SAM for Segmenting Cross-domain Point Clouds. European Conference on Computer Vision (ECCV), 2024

- 16. Yiming Ren, Xiao Han, Yichen Yao, Xiaoxiao Long, Yujing Sun*, <u>Yuexin Ma*</u>. LiveHPS++: Robust and Coherent Motion Capture in Dynamic Free Environment. European Conference on Computer Vision (ECCV), Oral, 2024
- 17. Zhenxiang Lin, Xidong Peng, Peishan Cong, Ge Zheng, Yujing Sun, Yuenan Hou, Xinge Zhu, Sibei Yang, Yuexin Ma*. WildRefer: 3D Object Localization in Large-scale Dynamic Scenes with Multi-modal Visual Data and Natural Language. European Conference on Computer Vision (ECCV), 2024
- 18. Xiao Fu, Mu Hu, Wei Yin, Kaixuan Wang, <u>Yuexin Ma</u>, Ping Tan, Shaojie Shen, Dahua Lin, Xiaoxiao Long. GeoWizard: Unleashing the Diffusion Priors for 3D Geometry Estimation from a Single Image. European Conference on Computer Vision (ECCV), 2024
- 19. Cheng Shi, Yulin Zhang, Bin Yang, Jiajin Tang, <u>Yuexin Ma</u>, Sibei Yang. Part2Object: Hierarchical Unsupervised 3D Instance Segmentation. European Conference on Computer Vision (ECCV), 2024
- 20. Yumeng Liu, Yaxun Yang, Youzhuo Wang, Xiaofei Wu, Jiamin Wang, Yichen Yao, Sören Schwertfeger, Sibei Yang, Wenping Wang, Jingyi Yu, Xuming He, <u>Yuexin Ma*</u>. RealDex: Towards Human-like Grasping for Robotic Dexterous Hand. International Joint Conference on Artificial Intelligence (IJCAI), 2024
- Youquan Liu, Lingdong Kong, Xiaoyang Wu, Runnan Chen, Xin Li, Liang Pan, Ziwei Liu, <u>Yuexin Ma*</u>. Multi-Space Alignments Towards Universal LiDAR Segmentation. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024
- 22. Yiteng Xu, Kecheng Ye, Xiao Han, Yiming Ren, Xinge Zhu, <u>Yuexin Ma*</u>. A Unified Framework for Human-centric Point Cloud Video Understanding. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024
- 23. Yichen Yao, Zimo Jiang, Yujing Sun, Zhencai Zhu, Xinge Zhu, Runnan Chen, <u>Yuexin Ma*</u>. HUNTER: Unsupervised Human-centric 3D Detection via Transferring Knowledge from Synthetic Instances to Real Scenes. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024
- 24. Yiming Ren, Xiao Han, Chengfeng Zhao, Jingya Wang, Lan Xu, Jingyi Yu, <u>Yuexin Ma*</u>. LiveHPS: LiDAR-based Scene-level Human Pose and Shape Estimation in Free Environment. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Highlight, 2024
- 25. YingWenQi Jiang, Jiadong Tu, Yuan Liu, Xifeng Gao, Xiaoxiao Long*, Wenping Wang, <u>Yuexin Ma*</u>. GaussianShader: 3D Gaussian Splatting with Shading Functions for Reflective Surfaces. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024
- 26. Xiaoxiao Long, Yuan-Chen Guo, Cheng Lin, Yuan Liu, Zhiyang Dou, Lingjie Liu, Yuexin Ma, Song-Hai Zhang, Marc Habermann, Christian Theobalt, Wenping Wang. Wonder3D: Single Image to 3D using Cross-Domain Diffusion. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Highlight, 2024
- 27. Xiaopei Wu, Yuenan Hou, Xiaoshui Huang, Binbin Lin, Tong He, Xinge Zhu, <u>Yuexin Ma</u>, Boxi Wu, Haifeng Liu, Deng Cai, Wanli Ouyang. TASeg: Temporal Aggregation Network for LiDAR Semantic Segmentation. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024
- 28. Ming Yan, Yan Zhang, Shuqiang Cai, Shuqi Fan, Xincheng Lin, Yudi Dai, Siqi Shen, Chenglu Wen, Lan Xu, Yuexin Ma, Cheng Wang. RELI11D: A Comprehensive Multimodal Human Motion Dataset and Method. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2024
- 29. Jiaping Ren, Jiahao Xiang, Hongfei Gao, Jinchuan Zhang, Yiming Ren, Yuexin Ma, Yi Wu, Ruigang Yang,

- Wei Li. NPC: Neural Predictive Control for Fuel-Efficient Autonomous Trucks. ICRA, 2024
- 30. Dingrui Wang, Lai Zheyuan, Yuda Li, Yi Wu, <u>Yuexin Ma</u>, Johannes Betz, Ruigang Yang, Wei Li. ESP: Extro-Spective Prediction for Long-term Behavior Reasoning in Emergency Scenarios. ICRA, 2024.
- 31. Yilan Dong, Chunlin Yu, Ruiyang Ha, Ye Shi, <u>Yuexin Ma</u>, Lan Xu, Yanwei Fu, Jingya Wang. HybridGait: A Benchmark for Spatial-Temporal Cloth-Changing Gait Recognition with Hybrid Explorations. Thirty-Eighth AAAI Conference on Artificial Intelligence (AAAI), 2024
- 32. Kai Cheng, Xiaoxiao Long, Wei Yin, Jin Wang, Zhiqiang Wu, <u>Yuexin Ma</u>, Kaixuan Wang, Xiaozhi Chen, Xuejin Chen. UC-NERF: Neural Radiance Field for Under-Calibrated Multi-View Cameras in Autonomous Driving. The International Conference on Learning Representations (ICLR), 2024
- 33. Runnan Chen, Youquan Liu, Lingdong Kong, Nenglun Chen, Xinge Zhu, <u>Yuexin Ma*</u>, Tongliang Liu, Wenping Wang*. Towards Label-free Scene Understanding by Vision Foundation Models. Conference on Neural Information Processing Systems (NeurIPS), 2023
- 34. Yuhang Lu, Qi Jiang, Runnan Chen, Yuenan Hou, Xinge Zhu, <u>Yuexin Ma*</u>. See More and Know More: Zero-shot Point Cloud Segmentation via Multi-modal Visual Data. International Conference on Computer Vision (ICCV), 2023
- 35. Yiteng Xu, Peishan Cong, Yichen Yao, Runnan Chen, Yuenan Hou, Xinge Zhu, Xuming He, Jingyi Yu, <u>Yuexin</u> <u>Ma*</u>. Human-centric Scene Understanding in 3D Large-scale Scenarios. International Conference on Computer Vision (ICCV), 2023
- Lingdong Kong, Youquan Liu, Runnan Chen, <u>Yuexin Ma</u>, Xinge Zhu, Yuenan Hou, Yikang Li, Yu Qiao, Ziwei Liu. Rethinking Range View Representation for LiDAR Segmentation. International Conference on Computer Vision (ICCV), 2023
- 37. Youquan Liu, Runnan Chen, Xin Li, Lingdong Kong, Yuchen Yang, Zhaoyang Xia, Yeqi Bai, Xinge Zhu, Yuexin Ma, Yikang Li, Yuenan Hou, Yu Qiao. UniSeg: A Unified Multi-Modal LiDAR Segmentation Network and the OpenPCSeg Codebase. International Conference on Computer Vision (ICCV), 2023
- 38. Xiangze Jia, Hui Zhou, Xinge Zhu, Yandong Guo, Ji Zhang, <u>Yuexin Ma*</u>. ContrastMotion: Self-supervised Scene Motion Learning for Large-Scale LiDAR Point Clouds. International Joint Conference on Artificial Intelligence (IJCAI), 2023
- 39. Chaofan Huo, Ye Shi, <u>Yuexin Ma</u>, Lan Xu, Jingyi Yu, Jingya Wang. StackFLOW: Monocular Human-Object Reconstruction by Stacked Normalizing Flow with Offset. International Joint Conference on Artificial Intelligence (IJCAI), 2023
- 40. Jingyu Zhang, Huitong Yang, Dai-Jie Wu, Jacky Keung, Xuesong li, Xinge Zhu, <u>Yuexin Ma*</u>, Cross-modal and Cross-domain Knowledge Transfer for Label-free 3D Segmentation, Chinese Conference on Pattern Recognition and Computer Vision (PRCV), 2023
- 41. Xidong Peng, Xinge Zhu, <u>Yuexin Ma*</u>. CL3D: Unsupervised Domain Adaptation for Cross-LiDAR 3D Detection. Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI), 2023.
- 42. Peishan Cong, Yiteng Xu, Yiming Ren, Juze Zhang, Lan Xu, Jingya Wang, Jingyi Yu, <u>Yuexin Ma*</u>. Weakly Supervised 3D Multi-person Pose Estimation for Large-scale Scenes based on Monocular Camera and Single LiDAR. Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI), Oral, 2023.

- 43. Juze Zhang, Ye Shi, <u>Yuexin Ma</u>, Lan Xu, Jingyi Yu, Jingya Wang. IKOL: Inverse kinematics optimization layer for 3D human pose and shape estimation via Gauss-Newton differentiation. Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI), 2023.
- 44. Yiming Ren, Chengfeng Zhao, Yannan He, Peishan Cong, Han Liang, Jingyi Yu, Lan Xu*, and <u>Yuexin Ma*</u>. LiDAR-aid Inertial Poser: Large-scale Human Motion Capture by Sparse Inertial and LiDAR Sensors. IEEE Transactions on Visualization and Computer Graphics (TVCG), 2023
- 45. Huitong Yang, Xuyang Bai, Xinge Zhu*, and <u>Yuexin Ma*</u>. One Training for Multiple Deployments: Polar-based Adaptive BEV Perception for Autonomous Driving. International Conference on Robotics and Automation (ICRA), 2023
- Mingkun Wang, Xinge Zhu, Changqian Yu, Wei Li, <u>Yuexin Ma</u>, Ruochun Jin, Xiaoguang Ren, Dongchun Ren, Mingxu Wang, Wenjing Yang. GANet: Goal Area Network for Motion Forecasting. International Conference on Robotics and Automation (ICRA), 2023
- 47. Runnan Chen, Xinge Zhu, Nenglun Chen, Wei Li, <u>Yuexin Ma</u>, Ruigang Yang, Wenping Wang. Bridging Language and Geometric Primitives for Zero-shot Point Cloud Segmentation. ACM Multimedia (MM), 2023
- 48. Ming Yan, Xin Wang, Yudi Dai, Siqi Shen, Chenglu Wen, Lan Xu, <u>Yuexin Ma</u>, Cheng Wang. CIMI4D: A Large Multimodal Climbing Motion Dataset under Human-scene Interactions. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- 49. Yudi Dai, YiTai Lin, XiPing Lin, Chenglu Wen, Lan Xu, Hongwei Yi, Siqi Shen, <u>Yuexin Ma</u>, Cheng Wang. SLOPER4D: A Scene-Aware Dataset for Global 4D Human Pose Estimation In Urban Environments. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- 50. Zhaoyang Xia, Youquan Liu, Xin Li, Xinge Zhu, <u>Yuexin Ma</u>, Yikang LI, Yuenan Hou, Yu Qiao. SCPNet: Semantic Scene Completion on Point Cloud. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- 51. Runnan Chen, Youquan Liu, Lingdong Kong, Xinge Zhu, <u>Yuexin Ma</u>, Yikang LI, Yuenan Hou, Yu Qiao, Wenping Wang. CLIP2Scene: Towards Label-efficient 3D Scene Understanding by CLIP. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- Peishan Cong, Xinge Zhu, Feng Qiao, Yiming Ren, Xidong Peng, Yuenan Hou, Lan Xu, Ruigang Yang, Dinesh Manocha, <u>Yuexin Ma*</u>. STCrowd: A Multimodal Dataset for Pedestrian Perception in Crowded Scenes. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022
- 53. Yudi Dai, Yitai Lin, Chenglu Wen, Siqi Shen, Lan Xu, Jingyi Yu, <u>Yuexin Ma</u>, Cheng Wang. HSC4D: Human-centered 4D Scene Capture in Large-scale Indoor-outdoor Space Using Wearable IMUs and LiDAR. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022
- Jialian Li, Jingyi Zhang, Zhiyong Wang, Siqi Shen, Chenglu Wen, <u>Yuexin Ma</u>, Lan Xu, Jingyi Yu, Cheng Wang. LiDARCap: Long-range Marker-less 3D Human Motion Capture with LiDAR Point Clouds. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022
- 55. Yuenan Hou, Xinge Zhu, <u>Yuexin Ma</u>, Chen Change Loy, Yikang Li. Point-to-Voxel Knowledge Distillation for LiDAR Semantic Segmentation. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2022
- Runnan Chen, <u>Yuexin Ma</u>, Nenglun Chen, Lingjie Liu, Zhiming Cui, Yanhong Lin, Wenping Wang. Structure-Aware Long Short-Term Memory Network for 3D Cephalometric Landmark Detection. IEEE Transactions on Medical Imaging (TMI), 2022

- 57. Yuwei Li, Longwen Zhang, Zesong Qiu, Yingwenqi Jiang, Nianyi Li, <u>Yuexin Ma</u>, Yuyao Zhang, Lan Xu, Jingyi Yu. NIMBLE: a non-rigid hand model with bones and muscles. ACM Transactions on Graphics (TOG), 2022
- 58. Keke Tang, <u>Yuexin Ma</u>, Dingruibo Miao, Peng Song, Zhaoquan Gu, Zhihong Tian, Wenping Wang. Decision fusion networks for image classification. IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2022
- 59. Xiao Song, Guorun Yang, Xinge Zhu, Hui Zhou, <u>Yuexin Ma</u>, Zhe Wang, Jianping Shi. AdaStereo: An Efficient Domain-Adaptive Stereo Matching Approach. International Journal of Computer Vision (IJCV), 2022.
- Yiming Ren, Peishan Cong, Xinge Zhu, <u>Yuexin Ma*</u>. Self-supervised Point Cloud Completion on Real Traffic Scenes via Scene-concerned Bottom-up Mechanism. IEEE International Conference on Multimedia and Expo (ICME), 2022
- 61. Xidong Peng, Xinge Zhu, <u>Yuexin Ma*</u>. SIDE: Center-based Stereo 3D Detector with Structure-awareInstance Depth Estimation. Winter Conference on Applications of Computer Vision (WACV), 2022
- 62. Xinge Zhu, Hui Zhou, Tai Wang, Fangzhou Hong, Wei Li, <u>Yuexin Ma*</u>, Hongsheng Li, Ruigang Yang, Dahua Lin. Cylindrical and Asymmetrical 3D Convolution Networks for LiDAR-based Perception. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2021
- 63. Peishan Cong, Xinge Zhu, <u>Yuexin Ma*</u>. Input-Output Balanced Framework for Long-tailed LiDAR Semantic Segmentation. IEEE International Conference on Multimedia and Expo (ICME), 2021
- 64. Xin Chen, Anqi Pang, Wei Yang, <u>Yuexin Ma</u>, Lan Xu and Jingyi Yu. SportsCap: Monocular 3D Human Motion Capture and Fine-grained Understanding in Challenging Sports Videos. International Journal of Computer Vision (IJCV), 2021.
- 65. Xin Chen, Anqi Pang, Wei Yang, <u>Yuexin Ma</u>, Lan Xu and Jingyi Yu. TightCap: 3D Human Shape Capture with Clothing Tightness. ACM Transactions of Graphics (TOG), 2021.
- 66. Yannan He, Anqi Pang, Xin Chen, Han Liang, Minye Wu, <u>Yuexin Ma</u>, Lan Xu. ChallenCap: Monocular 3D Capture of Challenging Human Performances using Multi-Modal References. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Oral, 2021
- 67. Xinge Zhu, Hui Zhou, Tai Wang, Fangzhou Hong, <u>Yuexin Ma</u>, Wei Li, Hongsheng Li, Dahua Lin. Cylindrical and Asymmetrical 3D Convolution Networks for LiDAR Segmentation. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Oral, 2021
- 68. Weixiang Yang, Qi Li, Wenxi Liu, Yuanlong Yu, <u>Yuexin Ma</u>, Shengfeng He, Jia Pan. Projecting Your View Attentively: Monocular Road Scene Layout Estimation via Cross-view Transformation. IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021
- 69. Xinge Zhu, <u>Yuexin Ma</u>, Tai Wang, Yan Xu, Jianping Shi, Dahua Lin. SSN: Shape Signature Networks for Multi-class Object Detection from Point Clouds. European Conference on Computer Vision (ECCV), 2020
- 70. <u>Yuexin Ma</u>, Xinge Zhu, Xinjing Cheng, Ruigang Yang, Jiming Liu, Dinesh Manocha. AutoTrajectory: Label-free Trajectory Extraction and Prediction from Videos using Dynamic Points. European Conference on Computer Vision (ECCV), 2020
- 71. Wei Li, Chengwei Pan, Rong Zhang, Jiaping Ren, <u>Yuexin Ma</u>, Jin Fang, Feilong Yan, Qichuan Geng, Xinyu Huang, Huajun Gong, Weiwei Xu, Guoping Wang, Dinesh Manocha, Ruigang Yang. AADS: Augmented

- Autonomous Driving Simulation using Data-driven Algorithms. Science Robotics, 2019
- 72. Runnan Chen, <u>Yuexin Ma</u>, Nenglun Chen, Daniel Lee, Wenping Wang. Cephalometric Landmark Detection by Attentive Feature Pyramid Fusion and Regression-Voting. International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI), 2019
- 73. Yang Yi, Feng Ni, <u>Yuexin Ma</u>, Xinge Zhu, Yuankai Qi, Riming Qiu, Shijie Zhao, Feng Li, Yongtao Wang. High Performance Gesture Recognition via Effective and Efficient Temporal Modeling. International Joint Conference on Artificial Intelligence (IJCAI), 2019
- 74. <u>Yuexin Ma</u>, Xinge Zhu, Sibo Zhang, Ruigang Yang, Wenping Wang, Dinesh Manocha. TrafficPredict: Trajectory Prediction for Heterogeneous Traffic-Agents. AAAI Conference on Artificial Intelligence (AAAI), Oral, 2019
- 75. <u>Yuexin Ma</u>, Dinesh Manocha, Wenping Wang. Efficient Reciprocal Collision Avoidance with Heterogeneous Agents Using CTMAT. International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Oral, 2018
- 76. <u>Yuexin Ma</u>, Dinesh Manocha, Wenping Wang. AutoRVO: Local Navigation with Dynamic Constraints in Dense Heterogeneous Traffic. ACM Computer Science in Cars Symposium (CSCS), 2018
- 77. <u>Yuexin Ma</u>, Zhonggui Chen, Wenchao Hu, Wenping Wang. Packing Irregular Objects in 3D Space via Hybrid Optimization. Symposium on Geometry Processing (SGP), 2018
- 78. <u>Yuexin Ma</u>, Xinge Zhu, Yujing Sun, Bingzheng Yan. Image Tagging by Joint Deep Visual-Semantic Propagation. Pacific-Rim Conference on Multimedia (PCM), 2017. Best paper candidate.
- 79. Weikai Chen*, <u>Yuexin Ma*</u>, Sylvain Lefebvre, Shiqing Xin, Jonàs Martínez, Wenping Wang. Fabricable Tile Decors. ACM Transactions on Graphics (TOG), 36(6), 2017.