Yida **WANG**

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Education

Technische Universität München *Germany*

PH.D. *in Computer Science*

Beijing University of Posts and Telecommunications *China*

M.SC.ENG. *in Electronics and Communication Engineering*

Beijing University of Posts and Telecommunications *China*

B.SC. *in Communication Engineering*

Publications

[1] **3D Assets Generation from Ray-adaptive Cost Volume**
YIDA WANG, LIJUN ZHOU, INTERNATIONAL JOURNAL OF COMPUTER VISION (IJCV)[2024] [UNDER REVIEW]

[2] **High-fidelity Endoscopic Image Synthesis by Utilizing Depth-guided Neural Surfaces**
BAORU HUANG, **YIDA WANG**, ANH NGUYEN, DANIEL ELSON, FRANCISCO VASCONCELOS, DANAIL STOYANOV, (CVPR W)[2024]

[3] **RaNeuS: Ray-adaptive Neural Surface Reconstruction**
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB, FEDERICO TOMBARI, IEEE CONFERENCE ON 3D VISION (3DV)[2024] [ORAL]

[4] **SecNet: Semantic Eye Completion in Implicit Field**
YIDA WANG, YIRU SHEN, DAVID JOSEPH TAN, FEDERICO TOMBARI, SACHIN TALATHI, NEURIPS GAZE MEETS ML (PMLR)[2022]

[5] **Lidar Upsampling with Sliced Wasserstein Distance**
ARTEM SAVKIN, **YIDA WANG**, SEBASTIAN WIRKERT, NASSIR NAVAB, FEDERICO TOMBARI, IEEE ROBOTICS AND AUTOMATION LETTERS (RAL)[2022]

[6] **Self-supervised Latent Space Optimization with Nebula Variational Coding**
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB, FEDERICO TOMBARI, IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE (T-PAMI)[2022]

[7] **Learning Local Displacements for Point Cloud Completion**
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB, FEDERICO TOMBARI, CONFERENCE ON COMPUTER VISION AND PATTERN RECOGNITION (CVPR)[2022]

[8] **SoftPool++: An Encoder-Decoder Network for Point Cloud Completion**
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB, FEDERICO TOMBARI, INTERNATIONAL JOURNAL OF COMPUTER VISION (IJCV)[2022]

[9] **SoftPoolNet: Shape Descriptor for Point Cloud Completion and Classification**
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB, FEDERICO TOMBARI, EUROPEAN CONFERENCE ON COMPUTER VISION (ECCV)[2020] [ORAL] DEMO

[10] **Structure-SLAM: Low-Drift Monocular SLAM in Indoor Environments**
YANYAN LI, NIKOLAS BRASCH, **YIDA WANG**, NASSIR NAVAB, FEDERICO TOMBARI, INTERNATIONAL CONFERENCE ON INTELLIGENT ROBOTS AND SYSTEMS (IROS)-RAL[2020]

[11] **ForkNet: Multi-branch Volumetric Semantic Completion from a Single Depth Image**
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB, FEDERICO TOMBARI, INTERNATIONAL CONFERENCE ON COMPUTER VISION (ICCV)[2019]

[12] **Variational Object-aware 3D Hand Pose from a Single RGB Image**
YIDA WANG*, YAFEI GAO*, PIETRO FALCO, NASSIR NAVAB, FEDERICO TOMBARI, THE IEEE INTERNATIONAL CONFERENCE ON ROBOTICS AND AUTOMATION (ICRA)-RAL[2019]
DEMO

[13] **Adversarial Semantic Scene Completion from a Single Depth Image**
Yida Wang, David Joseph Tan, Nassir Navab and Federico Tombari, IEEE Conference on 3D Vision (3DV)[2018] DEMO

[14] **Generative Model with Coordinate Metric Learning for Object Recognition Based on 3D Models**
Yida Wang and Weihong Deng, IEEE Transactions on Image Processing (TIP)[2018]

[15] **ZigzagNet: Efficient Deep Learning for Real Object Recognition Based on 3D Models**
Yida Wang, Can Cui and Weihong Deng, Asia Conference on Computer Vision (ACCV)[2016]

[16] **Self-restraint Object Recognition by Model Based CNN Learning**
Yida Wang and Weihong Deng, International Conference on Image Processing (ICIP)[2016]

[17] **Large-Scale 3D Shape Retrieval from ShapeNet Core55**
co-authored, Eurographics (EG)[2016]

[18] **Face Recognition Using Local PCA Filters**
Yida Wang, Shasha Li, Jiani Hu and Weihong Deng, CCBR[2015]

Awards

Fellows	2017-2021, MLH[1], TUM[2] and Bleence[3]	*Munich, Germany*
Contest	2016, Microsoft Open Source Challenge 2nd prize	*Redmond, U.S.A*
	2016, BUPT Innovation Awards 1st prize	*Beijing, PRC*
	2015, Tianchi Big Data Contest final list	*Hangzhou, PRC*
	2013, SCILAB Scientific open source Contest 1st prize	*Hefei, PRC*
	2009, National Math, Chemistry and Physics Contest of Senior High 3^{rd}_{N}, 1^{st}_{P} and 2^{nd}_{C} prize	*Dalian, PRC*
Awards	2019, Outstanding oversea PhD student	*Munich, Germany*
	2017, Excellent Master Graduate of Beijing City	*Beijing, PRC*
	2016, National Master Scholarship	*Beijing, PRC*
	2014, Excellent Bachelor Graduate of Beijing City	*Beijing, PRC*
Others	2016, Capital College Track and Field Games 4×400 Gold medal	*Beijing, PRC*
	2015, Beijing International Triathlon Bronze medal	*Beijing, PRC*
	2014, Capital College Track and Field Games 3000 steeplechase Bronze medal	*Beijing, PRC*

Experience

LiAuto *Shenzhen, China*
Senior Software Engineer *Jan. 2024 -*
- Street layout and dynamic objects reconstruction in urban areas for autonomous simulation
- Controllable vehicles manipulation in reconstructed scenes

Huawei Riemann Lab *Shenzhen, China*
Chief Software Engineer *Dec. 2022 - Dec. 2023*
- 3D geometric reconstruction in city-scale towards urban area and complex facilities

Synthesia *London, UK*
Research Intern *Jun. 2022 - Oct. 2022*
- High-fidelity Neural Actor

Facebook Reality Lab *Research* *Seattle, USA*
Research Intern *Jun. 2021 - Oct. 2021*
- Single-view semantic 3D eye reconstruction for eye tracking

Microsoft Research *Redmond, USA*
Prize Winner *Apr. 2016 - May 2016*
- Make multi-thread deep learning for CNTK, awarded as global 2nd prize in Microsoft open source challenge.

OpenCV – sponsored by Google *Beijing, PRC*

Software Engineer *Apr. 2015 - Sep. 2016*

- An initial developer of tiny-dnn, which is the deep learning backend for OpenCV.
- Contributed 3 OpenCV modules: 3D multi-task learning, quantized deep learning and super resolution.

Skills

Programming	C/C++, Python, LaTeX, CUDA, Matlab, Scilab, shell, markdown
Pattern Recognition	Bayesian Inference, Tensor Algebra, Deep Learning, 3D Vision
Languages	English (TOEFL: 92 & CET-6: 552), Chinese, Deutsch

Extra activity

Tutor, Technical University of Munich *Munich, Germany*

Oct. 2017 - Mar. 2018

- Foundations of Computer Vision
- Recent Trends in 3D Computer Vision and Deep Learning
- Deep Generative Models