



# Yida WANG

PH.D STUDENT · CHAIR FOR COMPUTER AIDED MEDICAL PROCEDURES & AUGMENTED REALITY

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## Education

Technische Universität München *Germany*

Ph.D. in Computer Science

Beijing University of Posts and Telecommunications *PR. China*

M.Sc.Eng. in Electronics and Communication Engineering

Beijing University of Posts and Telecommunications *PR. China*

B.Sc. in Communication Engineering

## Publications

- [1] **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)<sup>2022</sup>
- [2] **Learning Local Displacements for Point Cloud Completion**  
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB, FEDERICO TOMBARI, CONFERENCE ON COMPUTER VISION AND PATTERN RECOGNITION (CVPR)<sup>2022</sup>
- [3] **SoftPool++: An Encoder-Decoder Network for Point Cloud Completion**  
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB, FEDERICO TOMBARI, INTERNATIONAL JOURNAL OF COMPUTER VISION (IJCV)<sup>2022</sup>
- [4] **SoftPoolNet: Shape Descriptor for Point Cloud Completion and Classification**  
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB, FEDERICO TOMBARI, EUROPEAN CONFERENCE ON COMPUTER VISION (ECCV)<sup>2020</sup> ORAL [DEMO](#)
- [5] **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<sup>2020</sup>
- [6] **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)<sup>2019</sup>
- [7] **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<sup>2019</sup> [DEMO](#)
- [8] **Adversarial Semantic Scene Completion from a Single Depth Image**  
YIDA WANG, DAVID JOSEPH TAN, NASSIR NAVAB AND FEDERICO TOMBARI, 3DV<sup>2018</sup> [DEMO](#)
- [9] **Generative Model with Coordinate Metric Learning for Object Recognition Based on 3D Models**  
YIDA WANG AND WEIHONG DENG, IEEE TRANSACTIONS ON IMAGE PROCESSING (TIP)<sup>2018</sup>
- [10] **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)<sup>2016</sup>
- [11] **Self-restraint Object Recognition by Model Based CNN Learning**  
YIDA WANG AND WEIHONG DENG, INTERNATIONAL CONFERENCE ON IMAGE PROCESSING (ICIP)<sup>2016</sup>
- [12] **Large-Scale 3D Shape Retrieval from ShapeNet Core55**  
CO-AUTHORED, EUROGRAPHICS (EG)<sup>2016</sup>

## Awards

<b>Fellows</b>	2017-2021, MLH <sup>[1]</sup> , TUM <sup>[2]</sup> and Bleence <sup>[3]</sup>	Munich, Germany
<b>Contest</b>	2016, Microsoft Open Source Challenge 2 <sup>nd</sup> prize	Redmond, U.S.A
	2016, BUPT Innovation Awards 1 <sup>st</sup> prize	Beijing, PRC
	2015, Tianchi Big Data Contest final list	Hangzhou, PRC
	2013, SCILAB Scientific open source Contest 1 <sup>st</sup> prize	Hefei, PRC
	2009, National Math, Chemistry and Physics Contest of Senior High 3 <sup>rd</sup> <sub>N</sub> , 1 <sup>st</sup> <sub>P</sub> and 2 <sup>nd</sup> <sub>C</sub> prize	Dalian, PRC
<b>Awards</b>	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
<b>Others</b>	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

### Facebook Reality Lab Research

RESEARCH INTERN

Seattle, USA

Jun. 2021 - Oct. 2021

- Single-view semantic 3D eye reconstruction for eye tracking

### Microsoft Research

PRIZE WINNER

Redmond, USA

Apr. 2016 - May 2016

- Make multi-thread deep learning for CNTK, awarded as global 2<sup>nd</sup> prize in [Microsoft open source challenge](#).

### OpenCV – sponsored by Google

SOFTWARE ENGINEER

Beijing, PRC

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

<b>Programming</b>	C/C++, Python, LaTeX, CUDA, Matlab, Scilab, shell, markdown
<b>Pattern Recognition</b>	Bayesian Inference, Tensor Algebra, Deep Learning, 3D Vision
<b>Languages</b>	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