



# Yida WANG

PH.D STUDENT · COMPUTER VISION AND PATTERN RECOGNITION

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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 - major GPA: 3.42

Beijing University of Posts and Telecommunications **PR. China**

B.Sc. in Communication Engineering - major GPA: 3.58

## Publications

- [1] **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>
- [2] **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>
- [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

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|--------------------|--|-----------------|
| <b>Fellowships</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> N, 1 <sup>st</sup> P and 2 <sup>nd</sup> C prize | Dalian, PRC     |
| <b>Awards</b>      | 2019, Outstanding oversea PhD student <sup>top 25 in Germany</sup>   | Munich, Germany |
|                    | 2017, Excellent Master Graduate of Beijing City  | Beijing, PRC    |
|                    | 2016, National Master Scholarship <sup>top-tier scholarship in China</sup>   | 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    |
|                    | 2014, Capital College Track and Field Games 3000 steeplechase Bronze medal   | Beijing, PRC    |
|                    | 2015, Beijing International Triathlon Bronze medal   | Beijing, PRC    |

## Experience

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### 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 2<sup>nd</sup> prize in Microsoft Faculty Summit for open source challenge.

### Google & OpenCV

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](#), [tiny-dnn on iOS](#) and [super resolution](#).

## Skills

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|----------------------------|--|
| <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

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### 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