Zengqiang Yan

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Education

2016–present **Doctor of Philosophy**, *Hong Kong University of Science and Technology*, Hong Kong, Supervisor: Kwang-Ting Tim Cheng.
Specialized in Computer Science

2013–2016 **Master of Science**, *Huazhong University of Science and Technology*, China, Supervisor: Li Yu.
Specialized in Computer Science

2009–2013 **Bachelor of Engineering**, *Huazhong University of Science and Technology*, China.
Specialized in Electronic Information and Communications

Experience

Internship

2015.06–2015.12 **Research Intern**, Microsoft Research Asia, Beijing.
Developed a learning-from-observation paradigm to enable two different kinds of robot platforms for action recognition. The demo was selected to the TechFest 2016 of Microsoft.
- Mentor: Katsushi Ikeuchi, IEEE Fellow

Visiting Scholar

2014.12–2015.04 **Visiting Student**, Texas A&M University, USA.
Worked on depth image processing and developed a large-area depth recovery algorithm for depth enhancement. The paper won 10% paper award at the IEEE Workshop on Multimedia Signal Processing 2015.
- Advisor: Zixiang Xiong, IEEE Fellow

Awards

2016 Postgraduate Scholarship, HKUST

2016 Award of Excellence, Microsoft Research Asia Internship Program

2016 Huawei Scholarship

2016 Outstanding Graduates, HUST

2015 **Top 10% Paper Award**, IEEE Workshop on Multimedia Signal Processing

2015 Student Travel Grant Award, IEEE Signal Processing Society

2014 National Scholarship for Graduate Students

2013 Outstanding Graduates, HUST

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Hong Kong University of Science and Technology
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2012 National Encouragement Scholarship

Publication

Under Review

2018 **Zengqiang Yan**, Xin Yang, and Kwang-Ting Cheng, "Joint segment-level and pixel-wise losses for deep learning based retinal vessel segmentation," submitted to *IEEE Transactions on Biomedical Engineering* (under review after major revision).

2018 **Zengqiang Yan**, Xin Yang, and Kwang-Ting Cheng, "A three-stage deep learning model for accurate retinal vessel segmentation," submitted to *IEEE Journal of Biomedical and Health Informatics* (under review).

2018 **Zengqiang Yan**, Xin Yang, and Kwang-Ting Cheng, "A deep model with shape-preserving loss for gland instance segmentation," submitted to *MICCAI 2018* (under review).

Journal

2017 **Zengqiang Yan**, Xin Yang, and Kwang-Ting Cheng, "A skeletal similarity metric for quality evaluation of retinal vessel segmentation," *IEEE Transactions on Medical Imaging*.

2014 **Zengqiang Yan**, Li Yu, You Yang, and Qiong Liu, "Beyond the interference problem: hierarchical patterns for multiple-projector structured light system," *Applied Optics*.

2017 Changjian Zhu, Li Yu, **Zengqiang Yan**, and Sen Xiang, "Frequency estimation of the plenoptic function using the autocorrelation theorem," *IEEE Transactions on Computational Imaging*.

2016 Katsushi Ikeuchi, Zhaoyuan Ma, **Zengqiang Yan**, Shunsuke Kudoh, and Minako Nakamura, "Describing upper body motions based on the Labanotation for learning-from-observation robots," *arXiv preprint*.

2016 Huiping Deng, Jin Wu, Lei Zhu, **Zengqiang Yan**, and Li Yu, "Texture edge-guided depth recovery for structured light-based depth sensor," *Multimedia Tools and Applications*.

Conference

2015 **Zengqiang Yan**, Li Yu, and Zixiang Xiong, "Large-area depth recovery for RGB-D camera," in *Proc. IEEE Int. Conf. Image Process.*

2015 **Zengqiang Yan**, Li Yu, and Zixiang Xiong, "Texture-free large-area depth recovery for planar surfaces," in *Proc. IEEE Int. Workshop Multimedia Signal Process.*

Research Interests

- Deep Learning
- 3D Reconstruction
- Medical Image Analysis
- 3D Modeling