

# Yiguo Qiao

## Curriculum Vitae

Department of Computer Science, University of Bath  
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## Work Experience

2019–now **Research Associate**, *Department of Computer Science, University of Bath, England.*

## Education

- 2011–2018 **Ph.D. at Xidian University**, *School of Artificial Intelligence, Xi'an, China.*  
Doctor of Philosophy in Circuits and Systems  
Dissertation: *Depth Super-resolution and Virtual View Synthesis in 3D Stereoscopic Vision*  
Advisors: Prof. Licheng Jiao (*Fellow, IEEE*) and Prof. Jin Pan
- 2010–2011 **Master's degree at Xidian University**, *Key Laboratory of Intelligent Perception and Image Understanding of Ministry of Education, Xi'an, China.*  
Master of Science in Intelligent Information Processing  
Advisors: Prof. Licheng Jiao (*Fellow, IEEE*) and Prof. Jin Pan
- 2006–2010 **Bachelor's degree at Xidian University**, *School of Electronic Engineering, Xi'an, China.*  
Bachelor of Science in Automation  
Dissertation: *Research and Development of Integrated System of ERP and MES*

## Research Experience

- 2021–now *Research on Unsupervised Motion Retargetting in Motion Capture*, **Researcher**, University of Bath and Trinity College Dublin.
- 2019–2021 *Development of Rheumatoid Arthritis Flare Profiler*, **Researcher**, University of Bath, University of Bristol, Health-tech Company Living With, and Royal United Hospitals Bath NHS Foundation Trust (RUH).
- 2019–2021 *Research on Efficient Classification Algorithm for Spatial Spectrum Width Learning of Hyperspectral Remote Sensing*, **Co-Investigator**, Xidian University.
- 2013–2016 *Research on Elimination of Coding Effect and High Quality Binocular View Generation in 3DTV*, **Co-Investigator**, Xidian University.
- 2012–2013 *Technologies of Video Processing in 3DTV*, **Co-Investigator**, Xidian University and Huawei Technologies Co. Ltd.

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## Publications

### Peer-reviewed publications

- 2021 George Fletcher, **Yiguo Qiao**, Rebecca Fribourg, Jake Deane, Rachel McDonnell and Darren Cosker, *Exploring the Perception of Quadruped Motion Retargeting*, [ACM SIGGRAPH Conference on Motion, Interaction and Games \(MIG\)](#), 2021. (*Poster*).
- Donal Egan, George Fletcher, **Yiguo Qiao**, Darren Cosker and Rachel McDonnell, *How to Train Your Dog: Neural Enhancement of Quadruped Animations*, [ACM SIGGRAPH Conference on Motion, Interaction and Games \(MIG\)](#), 2021. (*Short paper*).
- Yiguo Qiao**, Licheng Jiao, Wenbin Li, Christian Richardt and Darren Cosker, *Fast, High-quality Hierarchical Depth-map Super-resolution*, [ACM International Conference on Multimedia \(ACM MM\)](#), 2021. (*Full paper*).
- 2020 **Yiguo Qiao**, Licheng Jiao, Xu Tang, Wenbin Li and Darren Cosker, *High-quality Depth Up-sampling via A Supervised Classification Guided MRF Model*, [Pattern Recognition Letters](#).
- 2019 **Yiguo Qiao**, Licheng Jiao, Shuyuan Yang, Biao Hou and Jie Feng, *Color Correction and Depth-Based Hierarchical Hole Filling in Free Viewpoint Generation*, [IEEE Transactions on Broadcasting](#).
- 2018 **Yiguo Qiao**, Licheng Jiao, Shuyuan Yang and Biao Hou, *A Novel Segmentation Based Depth Map Up-sampling*, [IEEE Transactions on Multimedia](#).
- Yiguo Qiao**, Licheng Jiao and Biao Hou, *High-quality Depth Up-sampling Based on Multi-scale SLIC*, [Electronics Letters](#).
- 2014 **Yiguo Qiao** and Cheolkon Jung, *Dictionary Based Hole Filling with Assistance of Depth*, [Proc. IEEE Intl. Conf. on Multimedia and Expo \(ICME\)](#), 2014. (*Full paper*).

### Papers in progress

1. Anonymous Author(s), *The Relationship between Grip Strength and RAPID3 (Routine Assessment of Patient Index Data 3) in Patients with Rheumatoid Arthritis and Short-term Prediction of Disease Condition using LSTM (Long Short Term Memory) network*.
2. Anonymous Author(s), *Joint Segmentation on Thermal Image and Relationship Analysis between Hand Temperature and RAPID3 for Follow-up of Rheumatoid Arthritis*.

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## Patents

1. L. Jiao, **Y. Qiao**, et al., *A Color Correction based Free Viewpoint Generation Method*, China, 201610334492.7[P], authorized in 2018-03-13.
2. C. Jung, L. Jiao, F. Xue, T. Sun, **Y. Qiao**, *A Parallax Minimal Perceptible Model based Stereo Video Coding Method*, China, 201410240167.5[P], authorized in 2018-05-22.

3. L. Jiao, **Y. Qiao**, et al., *A minimum joint distance based depth map up-sampling method*, China, 201610334077.1[P], authorized in 2019-04-23.

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## Technical Skills

Programming Python, MATLAB, HTML, css, C/C++

Others  $\text{\LaTeX}$ , Lyx, TeXworks, SPSS, Blender, Unity, Docker, Microsoft Office Tools, Mendeley

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## Languages

Chinese (native), English (intermediate)

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## Leisure and Entertainment

Singing, Playing Ukulele and Piano, Photography, Traveling, etc.