

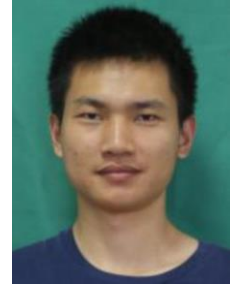
# Menghan XIA

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## Research Interests

My research interests lie in the areas of Computer Vision and Graphics, especially those topics related to Image Processing. Before Ph.D. study, my research work involves topics on: structure from motion, image distortion rectification, aerial image stitching, and color consistency correction.

Currently, I have been focusing on deep learning techniques for image synthesis, image transformation/editing and image interpretation. Besides, video based processing and 3D points/model segmentation are also my potential research interest.

## Education

**Ph.D. in Computer Science** (2017-now), *The Chinese University of Hong Kong*

Advisor: Tien-Tsin Wong

**M.Sc. in Pattern Recognition and Intelligent System** (2014-2017), *Wuhan University*

GPA: 3.26/4.0

Thesis: Pose-Free Stitching and Color Consistency Correction for Aerial Images

Advisor: Jian Yao

**B.Sc. in Photogrammetry and Remote Sensing** (2010-2014), *Wuhan University*

GPA: 3.61/4.0

Thesis: 3D Reconstruction of Outdoor Scene Based on Sequential Images

Advisor: Jian Yao

## Publications

### ▪ Conference

1. Deep Inverse Halftoning via Progressively Residual Learning  
**Menghan Xia**, Tien-Tsin Wong.  
Asian Conference on Computer Vision (**ACCV**) 2018.
2. Invertible Grayscale

**Menghan Xia**, Xueting Liu, Tien-Tsin Wong.  
**SIGGRAPH Asia** 2018.

3. Color Consistency Correction Based on Remapping Optimization for Image Stitching  
**Menghan Xia**, Jian Yao, Renping Xie, Mi Zhang, Jinsheng Xiao.  
IEEE International Conference on Computer Vision Workshop (**ICCVW**) 2017.
4. Robust Alignment for UAV Images Based on Adaptive Adjustment  
**Menghan Xia**, Jian Yao, Xiaohu Lu, Li Li.  
International Workshop on Pattern Recognition in Remote Sensing (**PRRS**) 2016
5. Consistent Tonal Correction for Multi-View Remote Sensing Image Mosaicking  
**Menghan Xia**, Jian Yao, Li Li, Renping Xie, Yahui Liu.  
XXIII ISPRS Congress (**ISPRS-Annals**) 2016.
6. Joint Point and Line Segment Matching on Wide-Baseline Stereo Images  
Kai Li, Jian Yao, **Menghan Xia**, Li Li.  
IEEE Winter Conference on Applications of Computer Vision (**WACV**) 2016.
7. Globally Consistent Alignment for Mosaicking Aerial Images  
**Menghan Xia**, Jian Yao, Li Li, and Xiaohu Lu.  
IEEE International Conference on Image Processing (**ICIP**) 2015.
8. Line-Based Multiple Label Energy Optimization for Fisheye Image Rectification and Calibration  
Mi Zhang, Jian Yao, **Menghan Xia**, Kai Li, Yi Zhang, and Yaping Liu  
IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**) 2015.

## ▪ Journal

1. A robust projection plane selection strategy for UAV image stitching  
Renping Xie, Jingmin Tu, Jian Yao, **Menghan Xia**.  
International Journal of Remote Sensing (**IJRS**). To appear (2018).
2. RoadNet: Learning to Comprehensively Analyze Road Networks in Complex Urban Scenes from High Resolution Remotely Sensed Images  
Yahui Liu, Jian Yao, Xiaohu Lu, **Menghan Xia**.  
IEEE Transactions on Geoscience and Remote Sensing (**TGRS**). To appear (2018).
3. Guided color consistency optimization for image mosaicking  
Renping Xie, **Menghan Xia**, Jian Yao, Li Li.  
ISPRS Journal of Photogrammetry and Remote Sensing (**ISPRS**). 135:43-59 (2018).
4. Optimal Seamline Detection in Dynamic Scenes via Graph Cuts for Image Mosaicking  
Li Li, Jian Yao, Haoang Li, **Menghan Xia**, Wei Zhang.

Machine Vision and Applications (**MVA**). 28:819-837 (2017).

5. Globally Consistent Alignment for Planar Mosaicking via Topology Analysis  
**Menghan Xia**, Jian Yao, Renping Xie, Li Li, Wei Zhang.  
Pattern Recognition (**PR**). 66:239-252 (2017).
6. A Unified Framework for Street-View Panorama Stitching  
Li Li, Jian Yao, Renping Xie, **Menghan Xia**, Wei Zhang.  
Sensors. 17:1-27 (2017).

## Professional Services

- **Conference Reviewer**  
CCCV2017, PG2018.
- **Journal Reviewer**  
The Visual Computer, IEEE Access.

## Awards

- Outstanding Graduate (Postgraduate) of Wuhan University, 2017
- First Prize Scholarship of Wuhan University, 2016.
- Microsoft Aerial Survey Scholarship, 2015.
- Excellent Graduate Freshman Scholarship of Wuhan University, 2014.
- Outstanding Graduate (Undergraduate) of Wuhan University, 2014.
- Excellent Student Scholarship in Wuhan University, 2012.
- Excellent Student Scholarship in Wuhan University, 2011.