

# XUEJIAN RONG

## PERSONAL DATA

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## EDUCATION

*2013-present*        The City College, City University of New York, New York, NY, USA  
Ph.D. Candidate in Electrical Engineering  
Advisor: Professor [Yingli Tian](#)  
Research Interests: Text Spotting in Natural Scenes, Image Degradations Removal  
  
*2009-2013*            Nanjing University of Aeronautics and Astronautics, Nanjing, China  
Bachelor of Engineering in Detection and Control Technology    First Class Honors

## PUBLICATIONS

X. Rong, Y. Tian. *Adaptive Shrinkage Cascades for Blind Image Deconvolution*. IEEE International Conference on Digital Signal Processing (**DSP**), 2016.

Y. Xian, X. Rong, X. Yang, and Y. Tian. *Evaluation of Low-Level Features for Real-World Surveillance Event Detection*. IEEE Transactions on Circuits and Systems for Video Technology (**TCSVT**), 2016.

X. Rong, C. Yi, Y. Tian. *Recognizing Text-based Traffic Guide Panels with Cascaded Localization Network*. ECCV Workshop on Computer Vision for Road Scene Understanding and Autonomous Driving (**CVRSUAD**), 2016.

Y. Ye, X. Rong, X. Yang, and Y. Tian. *Region Trajectories for Video Semantic Concept Detection*. ACM International Conference on Multimedia Retrieval (**ICMR**), 2016.

B. Li, J.P. Munoz, X. Rong, J. Xiao, Y. Tian, A. Arditi. *ISANA: Wearable Context-Aware Indoor Assistive Navigation with Obstacle Avoidance for the Blind*. ECCV Workshop on Assistive Computer Vision and Robotics (**ACVR**), 2016.

J. P. Munoz, B. Li, X. Rong, J. Xiao, Y. Tian, and A. Arditi, *Demo: Assisting Visually Impaired People Navigate Indoors*, the 25th International Joint Conference on Artificial Intelligence (**IJCAI**), 2016.

R. Munoz, X. Rong, and Y. Tian. *Depth-aware Indoor Staircase Detection and Recognition for the Visually Impaired*. ICME Workshop on Mobile Multimedia Computing (**MMC**), Oral Presentation, 2016.

Y. Ye, X. Rong, X. Yang, and Y. Tian. *CCNY at TRECVID 2015: Video Semantic Concept Localization*. NIST TREC Video Retrieval Evaluation Workshop (**TRECVID**), 2015.

B. Li, X. Zhang, J. P. Munoz, J. Xiao, X. Rong, and Y. Tian. *Assisting Blind People to Avoid Obstacles: An Wearable Obstacle Stereo Feedback System based on 3D Detection*, IEEE International Conference on Robotics and Biomimetics (**ROBIO**), 2015.

Y. Xian, X. Rong, X. Yang, and Y. Tian. *CCNY at TRECVID 2014: Surveillance Event Detection*. NIST TREC Video Retrieval Evaluation Workshop (**TRECVID**), 2014.

X. Rong, C. Yi, X. Yang and Y. Tian. *Scene Text Recognition in Multiple Frames based on Text Tracking*. IEEE International Conference on Multimedia and Expo (**ICME**), 2014.

## RESEARCH EXPERIENCE

*9/2013-present*        Scene Text Detection and Recognition in Natural Images

Design new deep learning based inference algorithms for scene text detection and recognition in the wild, in the presence of image degradations like blur, distortion, noise, cluttered background, etc. Recognized texts in indoor environments usually carries important contextual information which could significantly assist the independent travel of blind or visually impaired persons.

9/2014-  
present

### Intelligent Navigation Aid for Visually Impaired Persons

Design new image deblurring algorithm to remove the degradations in captured indoor videos, then use the clear output videos to do real-time indoor navigation for blind people.

9/2013-  
present

### Destination Recognition for Visually Impaired Persons

Design new image deblurring algorithm to remove the degradations in captured indoor videos, then use the clear output videos to do automatic target/destinations recognition for the guidance of blind people.

5/2012-  
6/2013

### MICROSOFT KINECT based 3D Object Recognition for Remote Operation

Designed rendering algorithms to control the Haptic Interaction Point (HIP) to interact with virtual environment created by the depth image from KINECT(Microsoft Corp.)

## HONOR & AWARDS

2016

### Travel Award for the ICME 2016

Won travel award and NSF student support for the IEEE International Conference on Multimedia and Expo (ICME) 2016.

2009-2012

### First Class Academic Scholarship

For top 10% students in the whole department.

## TECHNICAL SKILLS

*Programming  
Languages*

C, C++, Matlab, Python, Java, and Shell with practical experiences

*Platforms and  
Tools*

Visual Studio, Android Studio, QT, GIT, L<sup>A</sup>T<sub>E</sub>X, GNU Linux

## LANGUAGE

Chinese Mandarin: Native

English: Fluent

Japanese: Beginner