# 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 Insterests: Text Spotting in Natural Scenes, Image Degradations Removal

*2009-2013* Nanjing University of Aeronautics and Astronautics, Nanjing, China

Bachelor of Engineering  Outstanding Undergraduate Thesis Award

## JOURNAL PUBLICATIONS

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.

## CONFERENCE PUBLICATIONS

**X. Rong**, C. Yi, and Y. Tian. *Unambiguous Text Localization and Retrieval for Cluttered Scenes*. IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2017. (Spotlight Presentation)

**X. Rong**, B. Li, A. Arditi, and Y. Tian. *Guided Text Spotting for Assistive Blind Navigation in Unfamiliar Environments*. International Symposium on Visual Computing (**ISVC**), 2016. (Oral Presentation)

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

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, 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.

**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.

## WORKSHOP PUBLICATIONS

**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.

B. Li, J. 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.

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**), 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.

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

## ACADEMIC HONORS

*2016* **Travel Award for the IEEE ICME 2016**

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

*2013-2014* **Awarded the GSOE Graduate Fellowship from CCNY**

*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, LaTeX, GNU Linux

## LANGUAGE

*Chinese Mandarin:* Native *English:* Fluent *Japanese:* Beginner