XUEJIAN RONG

email xrong@ccny.cuny.edu

website http://xrong.org

phone (917)717-3986

address Steinman Hall ST632, 160 Convent Avenue, New York, NY 10031

EDUCATION

09/2013-present The City College, City University of New York (CUNY)

Ph.D. Candidate in Electrical Engineering Expected August 2018

Committee: Yingli Tian (chair), Ioannis Stamos, Jizhong Xiao, Zhigang Zhu

Research Focus: Computer Vision & Image Processing & Machine Learning

09/2009-06/2013 Nanjing University of Aeronautics and Astronautics

B.E. in Control Science and Engineering Outstanding Undergraduate Thesis Award

SELECTED 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*)

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**), 2017.

J. P. Munoz, B. Li, **X. Rong**, J. Xiao, Y. Tian, and A. Arditi. *An Assistive Indoor Navigation System for the Visually Impaired in Multi-Floor Environments*. IEEE International Conference on CYBER Technology in Automation (**CYBER**), 2017. (*Best Paper Award*)

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.

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

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.

PROJECTS & EXPERIENCE

2013-Present **Scene Text Detection and Recognition in Natural Images**

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

2014-2016 **Intelligent Navigation Aid for Visually Impaired Persons**

Designed new image deblurring algorithms to remove the degradations in captured indoor videos, then adopted the deblurred videos to perform real-time indoor navigation and automatic destination recognition for the visually impaired people.

2012-2013 **Microsoft Kinect based 3D Object Recognition for Remote Operation**

Designed rendering algorithms to control the Haptic Interaction Point (HIP) to interact with virtual environments created by the depth images captured by Kinect (Microsoft Corp.)

ACADEMIC HONORS

2016 Travel Award of IEEE ICME 2016

2013-2017 Graduate Fellowship from The City University of New York (CUNY)

2009-2012 First Class Academic Scholarship

SKILLS

Programming Languages C, C++, Matlab, Python, and Shell with practical experiences

Platforms and Tools OpenCV, PyTorch, TensorFlow, PyCharm, Electron, LaTeX, GNU Linux

PROFESSIONAL ACTIVITIES

Reviewer CVPR, ICCV, BMVC, ICIP, ICME, TMM, TIP, MVA, JVCI, etc.