Xiaosong.Wang at nih.gov

*To advance the clinical diagnosis using cutting-edge machine learning techniques*

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| Brief Bio | | |
|  | Currently, I am a postdoctoral fellow mentored by Dr. Ronald Summers and Dr. Le Lu at National Institutes of Health Clinical Center, focusing on deep learning techniques and their application in medical imaging. From Dec. 2013 to Jun. 2015, I was a product manager of post-processing workstations for multiple medical imaging modalities in Shanghai United Imaging Healthcare (UIH). Prior, I worked as an algorithm engineer and then dept. manager in Computer Aided Diagnosis (CAD) Department, Healthcare Software Unit, UIH, from Sep. 2011 to Nov. 2013. I received my PhD in Computer Vision under the supervision of Prof. Majid Mirmehdi at University of Bristol, UK in 2011. My research interests include computer vision, machine learning , deep learning and its application in medical imaging.   * My latest CV could be found [here](https://wang821002.github.io/XiaosongWang_CV_June2016.pdf) |  |
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| Updates | | |
| * [July 26th, 2016] Our work “Automated Annotation of a Large Scale Radiology Image Database using Deep Learning” is accepted as a scientific poster in RSNA 2016. * [July 25th, 2016] Our medical image categorization work wins the NIH Fellows Award of Research Excellence (FARE) 2017 competition. * [Apr. 29th, 2016] Our paper “Automatic Lymph Node Cluster Segmentation using Holistically-Nested Networks and Structured Optimization in CT images” is early accepted in MICCAI 2016. * [July 20th, 2015] I start my two-year postdoctoral fellowship in NIH. | | |
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| Projects | | |
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|  | **X. Wang**, L. Lu, H. Shin, L. Kim, I. Nogues, J. Yao, R. M. Summers.  *Unsupervised Category Discovery via Looped Deep Pseudo-Task Optimization Using a Large Scale Radiology Image Database.*  arXiv:1603.07965, 2016  [[PDF](http://arxiv.org/pdf/1603.07965)] [[arXiv](http://arxiv.org/abs/1603.07965)] [Database] |  |
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|  | I. Nogues, L. Lu, **X. Wang**, H. Roth, G. Bertasius, N. Lay, J. Shi, Y. Tsehay, R. M. Summers.  *Automatic Lymph Node Cluster Segmentation using Holistically-Nested Networks and Structured Optimization.*  MICCAI, 2016  [[PDF](https://wang821002.github.io/papers/miccai16.pdf)] |  |
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|  | **X. Wang** and M. Mirmehdi.  *Archive Film Defect Detection and Removal: an Automatic Restoration Framework.*  IEEE Transactions on Imaging Processing (T-IP), 2012  [[PDF](http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6180218)] [[PhD Thesis](https://wang821002.github.io/papers/PhD11.pdf)] |  |
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|  | **X. Wang** and M. Mirmehdi.  *Archive Film Restoration based on Spatiotemporal Random Walks.*  European Conference on Computer Vision (ECCV), 2010  [[PDF](https://wang821002.github.io/papers/ECCV10.pdf)] |  |
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|  | **X. Wang** and M. Mirmehdi.  HMM based Archive Film Defect Detection with Spatial and Temporal constraints.  British Machine Vision Conference (BMVC), 2009  **Winner of the Best Industrial Paper Prize**  [[PDF](https://wang821002.github.io/papers/BMVC09.pdf)] |  |
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| Last update: Aug. 2016 | | |