

Yu Li

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🌐 <http://yu-li.github.io/>



Education

- 2011–2015 **Ph.D. in Computer Science.**
National University of Singapore, Singapore
Thesis: Separating Layers in Images and Its Applications Advisor: Michael S. Brown
- 2007–2011 **B.Eng in Information Engineering.**
Beijing University of Posts and Telecommunications, Beijing

Research Interests

- **Computational photography:** low-level image restoration/enhancement, super resolution, color processing, digital panoramas, high-dynamic-range images, light field cameras, depth sensing
- **Computer vision:** optical flow, stereo, segmentation, facial analysis, image classification
- **Machine learning:** probability graphical model, deep learning
- **Optimization:** convex/non convex optimization, discrete optimization

Experience

Work Experience

- 2015–Present **Senior Research Engineer, Advanced Digital Sciences Center (ADSC), Singapore.**
ADSC is a research center, which was jointly founded by the University of Illinois at Urbana-Champaign (UIUC) and the Agency for Science, Technology and Research (A*STAR), Singapore. I am working on the *Visual Modeling and Analytics of Dynamic Environments for the Mass* project, as part of the Data Analytics sub-program. This project aims to address emerging challenges to visual data analytic by developing fundamental technical tools needed to bring structure into ever-growing visual data captured from various sources.

Internship

- 2014–2015 **Research Intern, Advanced Digital Sciences Center, Singapore.**
Worked on project for estimating dense correspondence (stereo/optical flow) between images with Dr. Jiangbo Lu and Dr. Dongbo Min.
- 2014–2015 **Undergrad Intern, BUPT Pattern Recognition and Intelligent System Lab, Beijing.**
worked on research projects for facial landmark locating, object recognition and segmentation with Prof. Weihong Deng.

Publications ([Google Scholar](#))

- ICCV 2015 **Nighttime Haze Removal with Glow and Multiple Light Colors.**
Yu Li, Robby T. Tan, Michael S. Brown.
IEEE International Conference on Computer Vision 2015
- ICCV 2015 **SPM-BP: Sped-up PatchMatch Belief Propagation for Continuous MRFs.**
Yu Li, Dongbo Min, Michael S. Brown, Mihn N. Do, Jiangbo Lu.
IEEE International Conference on Computer Vision 2015
[Oral Presentation]
- ECCV 2014 **A Contrast Enhancement Framework with JPEG Artifacts Suppression.**
Yu Li, Fangfang Guo, Robby T. Tan, Michael S. Brown.
European Conference on Computer Vision 2014
- CVPR 2014 **Single Image Layer Separation using Relative Smoothness.**
Yu Li, Michael S. Brown.
IEEE Conference on Computer Vision and Pattern Recognition 2014
[Oral Presentation]
- ICCV 2013 **Exploiting Reflection Change for Automatic Reflection Removal.**
Yu Li, Michael S. Brown.
IEEE International Conference on Computer Vision 2013
- MM-W 2013 **An Evaluation of Wearable Activity Monitoring Devices.**
Fangfang Guo, Yu Li, Mohan Kankanhalli, Michael S. Brown.
ACM Multimedia Workshop on Personal Data Meets Distributed Multimedia 2013
- EG 2013 **Seam-Driven Image Stitching.**
Junhong Gao, Yu Li, Tat-Jun Chin, Michael S. Brown.
Eurographics 2013
- ICNIDC 2013 **Locating Facial Features by Robust Active Shape Model.**
Jiani Hu, Yu Li, Weihong Deng, Jun Guo, Weiran Xu.
IEEE International Conference on Network Infrastructure and Digital Content 2010

Academic Activities

- Journal IEEE Pattern Analysis and Machine Intelligence (TPAMI)
- Reviewer IEEE Signal Processing Letter
Computer Graphics Forum
Computers & Graphics
- Conference Eurographics 2016
- Reviewer ACM Siggraph 2015
Pacific Graphics (PG) 2015
Pacific Graphics (PG) 2014
ACM Siggraph Asia 2014

Teaching

- 2014 Fall Teaching Assistant of CS5340 Uncertainty Modelling in AI

Awards

- 2011–2015 NUS Research Scholarship
- 2008–2010 BUPT Scholarship for Academic Excellence (for top 5%)
- 2008 Outstanding Student Award of BUPT

Talks

- Dec 2015 **SPM-BP: Sped-up PatchMatch Belief Propagation for Continuous MRFs**
IEEE International Conference on Computer Vision, Santiago, Chile
- Sep 2014 **Automatic Layer Separation in Images**
A*STAR Bioinformatics Institute, Singapore
- Jun 2014 **Single Image Layer Separation using Relative Smoothness**
IEEE Conference on Computer Vision and Pattern Recognition, Columbus, USA

Technical Strengths

- Programming C/C++, Python, Matlab
- Language Chinese (native), English (fluent)

References

- Advisor **Michael S. Brown**
Associate Professor in School of Computing, National University of Singapore
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- Collaborator **Robby T. Tan**
Assistant Professor in Yale-NUS College
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