

Ying Xiong

Résumé

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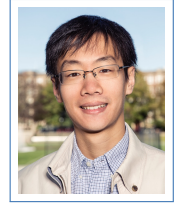
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Last modified: Oct 27, 2017.



Education

- 9/2010 – 8/2015 **Doctor of Philosophy**, *Electrical Engineering (focus in Computer Vision)*, 11/2015.
Master of Science, *Electrical Engineering*, 11/2012.
School of Engineering and Applied Sciences, Harvard University, Cambridge, MA, USA.
- 8/2006 – 7/2010 **Bachelor of Engineering**, *Electronic Engineering*, 7/2010.
Department of Electronic Engineering, Tsinghua University, Beijing, China.

Experience

- 10/2017 – present **Senior Software Engineer**, *Google Inc.*
Display ads targeting using machine learning technologies.
- 10/2015 – 10/2017 **Senior Software Engineer**, *Dropbox Inc.*, 1/2017 – 10/2017.
Software Engineer, *Dropbox Inc.*, 10/2015 – 12/2016.
Computer vision and machine learning algorithms for various Dropbox products, including document scanner, full-text search, etc.
- 5/2014 – 8/2014 **Software Engineering Intern**, *Apple Inc.*
Fraud and abuse detection through image analysis and machine learning.
- 5/2012 – 8/2012 **Software Engineering Intern**, *Google Inc.*
Water identification for 3D reconstruction in Google Map/Earth using computer vision.
- 9/2011 – 12/2011 **Research Assistant**, *NEC Laboratories America*.
Structure from motion framework for 3D reconstruction from a sequence of images.
- 7/2009 – 8/2009 **Research Intern**, *University of Southern California*.
Robust parameter estimation algorithm that improves RANSAC.

Patents

- Doc-Detect, 2017 Peter Welinder, Peter Belhumeur, Ying Xiong, Jongmin Baek, Simon Kozlov, Thomas Berg and David Kriegman. “Live Document Detection in a Captured Video Stream.” Non-provisional patent 15/658,291 filed by Dropbox Inc.
- Doc-Enhance, 2017 Peter Welinder, Peter Belhumeur, Ying Xiong, Jongmin Baek, Simon Kozlov, Thomas Berg and David Kriegman. “Enhancing Documents Portrayed in Digital Images.” Non-provisional patent 15/658,289 filed by Dropbox Inc.

Selected Publications

- Dropbox Blog, 2016 Ying Xiong. “Fast and Accurate Document Detection for Scanning.” *Dropbox Technical Blog Post*.

- Dissertation, 2015 Ying Xiong. "Physics-Based Visual Inference: Theory and Algorithms." *PhD Dissertation*. Harvard University, Cambridge, MA, USA.
- CVPR, 2015 Ayan Chakrabarti, Ying Xiong, Steven J. Gortler and Todd Zickler. "Low-level Vision by Consensus in a Spatial Hierarchy of Regions." *IEEE Conference on Computer Vision and Pattern Recognition*. Boston, MA, USA.
- TPAMI, 2015 Ying Xiong, Ayan Chakrabarti, Ronen Basri, Steven J. Gortler, David W. Jacobs and Todd Zickler. "From Shading to Local Shape." *IEEE Transactions on Pattern Analysis and Machine Intelligence*. Volume: 37, Issue: 1, Pages: 67-79.
- SIGGRAPH, 2013 Anat Levin, Daniel Glasner, Ying Xiong, Fredo Durand, William Freeman, Wojciech Matusik and Todd Zickler. "Fabricating BRDFs at High Spatial Resolution Using Wave Optics." *SIGGRAPH, ACM Transactions on Graphics*. Volume: 32, Issue: 4.
- CVPR, 2012 Ying Xiong, Kate Saenko, Trevor Darrell and Todd Zickler. "From Pixels to Physics: Probabilistic Color De-rendering." *IEEE Conference on Computer Vision and Pattern Recognition*. Providence, RI, USA. **Oral, Google Student Travel Awards.**
- ICASSP, 2012 Ying Xiong and Yue M. Lu. "Blind Estimation and Low-rate Sampling of Sparse MIMO Systems with Common Support." *IEEE International Conference on Acoustics, Speech, and Signal Processing*. Kyoto, Japan.
- Thesis, 2010 Ying Xiong. "Face Recognition Algorithm based on Lasso." *Undergraduate Thesis*. Tsinghua University, Beijing, China. **Outstanding Thesis.**
- IGTA, 2009 Ying Xiong and Hui-min Ma. "Application of SIFT Feature in 3D Object Recognition." *Conference on Image and Graphics Technology and Applications*. Pages: 290-294, Beijing, China. **Outstanding Paper.**

Awards and Certificates

- 2016 Nominated and finalist for Dropbox Hackweek "Heart" Award.
- 2015, 2016 Udacity Nanodegrees: Full Stack Web Developer, Data Analyst, and iOS Developer.
- 2012F, 2013S, 2014F Harvard University Certificate of Distinction in Teaching.
- 2012 CVPR Google Student Travel Awards.
- 2010 Outstanding Undergraduate Student of Beijing City.
- 2010 Outstanding Undergraduate Student in Tsinghua University.
- 2010 Outstanding Undergraduate Thesis in Tsinghua University.
- 2008, 2009 National Scholarship for Comprehensive Excellence, First Class.
- 2006 Silver Medal in China Mathematical Olympiad.
- 2005 First Prize in China High School Mathematical Olympiad and Physics Olympiad.

Teaching

- 2012F, 2013F, 2014F Harvard University CS 283, Computer Vision.
- 2013F Harvard University ES 255, Statistical Inference with Engineering Applications.
- 2013S Harvard University CS 207, System Development for Computational Science.
- 2012S Harvard University CS 124 / CSCI E-124, Data Structures and Algorithms.