

# Wenbin Li

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Max Planck Institute for Informatics  
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**RESEARCH INTEREST** Computer Vision: material recognition, object recognition, activity recognition  
Robotics: perception and manipulation  
Machine Learning: deep learning, transfer learning and reinforcement learning

**EDUCATION** *PhD student*, Computer Vision & Robotics 2013-present  
Saarland University & Max Planck Institute for Informatics, Germany

*Master of Science*, Computer Science 2010-2013  
Saarland University, Germany  
Thesis title: Multi-scale Feature Learning for Material Recognition

*Bachelor of Science*, Intelligent Science and Technology 2006-2010  
Beijing University of Posts and Telecommunications, China  
Specialization: Statistical Natural Language Processing

**ACADEMIC EXPERIENCE** *Teaching Assistant* Oct, 2014- Feb, 2015  
Machine Learning, Saarland University, Germany

*Research Assistant* Mar, 2012- Feb, 2013  
Computer Vision and Multimodal Computing Department, Max Planck Institute for Informatics, Germany  
Research Topic: Unsupervised feature learning for material recognition

*Research Assistant* Nov, 2011- Mar, 2012  
Computer Graphics Department, Max Planck Institute for Informatics, Germany  
Research Topic: Text entry

*Research Assistant* Mar, 2011- Nov, 2011  
Computer Vision and Multimodal Computing Department, Max Planck Institute for Informatics, Germany  
Research Topic: Material recognition

**PROFESSIONAL EXPERIENCE** *Data Mining Engineer*, Jun, 2010- July, 2010  
Funshion, Beijing, China

**PUBLICATION**

- [1] Wenbin Li, Jeannette Bohg and Mario Fritz. *Acquiring Target Stacking Skills by Goal-Parameterized Deep Reinforcement Learning*. Technical Report, 2017. (arXiv:1711.00267)
- [2] Wenbin Li, Aleš Leonardis and Mario Fritz. *Visual Stability Prediction and Its Application to Manipulation*. Advances in Neural Information Processing Systems (NIPS) Workshop on Intuitive Physics. 2016. (Extended Abstract); Technical Report, 2016. (arXiv:1609.04861, full Version)

- [3] Wenbin Li, Seyedmajid Azimi, Aleš Leonardis and Mario Fritz. *To Fall Or Not To Fall: A Visual Approach to Physical Stability Prediction*. Technical Report, 2016. (arXiv:1604.00066. 2016)
- [4] Wenbin Li and Mario Fritz. *Recognition of Ongoing Complex Activities by Sequence Prediction over a Hierarchical Label Space*. In IEEE Winter Conference on Applications of Computer Vision (WACV) 2016.
- [5] Wenbin Li and Mario Fritz. *Teaching Robots the Use of Human Tools from Demonstration with Non-Dexterous End-Effectors*. In IEEE RAS International Conference on Humanoid Robots (HUMANOIDS) 2015.
- [6] Wenbin Li. *Learning Multi-scale Representations for Material Classification*. Pattern Recognition. Springer International Publishing, 2014. 757-764.
- [7] Antti Oulasvirta, Anna Reichel, Wenbin Li, Yan Zhang, Myroslav Bachynskyi, Keith Vertanen, and Per Ola Kristensson. *Improving two-thumb text entry on touchscreen devices*. In SIGCHI Conference on Human Factors in Computing Systems (CHI) 2013.
- [8] Wenbin Li and Mario Fritz. *Recognizing materials from virtual examples*. In European Conference on Computer Vision (ECCV) 2012.

**AWARDS**

- Scholarship, International Max Planck Research School for Computer Science  
2013-2015
- Scholarship, Saarbrücken Graduate School of Computer Science, Saarland University  
2010-2012
- Scholarship for excellence in academic performance, Beijing University of Posts and Telecommunications  
2007-2009
- First prize and most creative award for customized Firefox web browser designing competition (among 11 teams from top universities in China)  
2008

**COMPUTER SKILLS**

Python, Matlab, R, Perl, Bash, C/C++,  
Java&Android, Objective C&iOS,  
OpenCV, PCL, ROS, Theano, Caffe

**LANGUAGES**

Chinese (native), English (fluent), German (basic)