Honghua Li
Curriculum Vitæ

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Academic Position

Senior Algorithm Engineer (2018 – now)
Indoor Scene Reconstruction, and Robotics.
A.I. Labs, Alibaba Group

Research Scientist (2015 – 2017)
Geometry Modeling, 3D Fabrication, Scene Synthesis, and Robotics.
Interdisciplinary Research Center, Shandong University

Education

PhD in Computing Science (2010 – 2015)
Simon Fraser University, Canada
Advisors: Hao (Richard) Zhang and Daniel Cohen-Or
Dissertation: *Shape Compaction via Stacking and Folding*
GPA: 4.0/4.3

Master in Computer Science (2008 – 2010)
National University of Defense Technology, China
Promoted to Doctoral Program w/o Master's Degree (an honor for the top 8%)
GPA: 3.8/4.0

BS in Computer Science (2004 – 2008)
National University of Defense Technology, China
GPA: 3.8/4.0

Publications

1. Xuelin Chen*, Honghua Li*, Chi-Wing Fu , Hao Zhang, Daniel Cohen-Or, and Baoquan Chen
   (*joint first authors)
   3D Fabrication with Universal Building Blocks and Pyramidal Shells
   ACM Transactions on Graphics (SIGGRAPH Asia 2018)

2. Rui Ma*, Honghua Li*, Changqing Zou, Zicheng Liao, Xin Tong, and Hao Zhang (*joint first authors)
   Action-Driven 3D Indoor Scene Evolution
   ACM Transactions on Graphics (SIGGRAPH Asia 2016), 35(6).

3. Changqing Zou, Tianfan Xue, Xiaojiang Peng, Honghua Li, Baocheng Zhang, Ping Tan, and Jianzhuang Liu
   An Example-Based Approach to 3D Man-made Object Reconstruction from Line Drawings
   Pattern Recognition 2016.

4. Hao Li, Guowei Wan, Honghua Li, Andrei Sharf, Kai Xu, and Baoquan Chen
   Mobility Fitting Using RANSAC 4D
   Computer Graphics Forum (SGP 2016), 35(5).

5. Honghua Li, and Hao Zhang
   Shape Compaction
   Book chapter in *Perspectives in Shape Analysis*, Dagstuhl Seminar, 2015.
   Editors: M. Breu, A. Bruckstein, P. Maragos, and S. Wuhrer.

6. Honghua Li*, Ruizhen Hu*, Ibraheem Alhashim, and Hao Zhang (*joint first authors)
   Foldabilizing Furniture
   ACM Transactions on Graphics (SIGGRAPH 2015), 34(6).

7. Ruizhen Hu, Honghua Li, Hao Zhang, and Daniel Cohen-Or
   Approximate Pyramidal Shape Decomposition
   ACM Transactions on Graphics (SIGGRAPH Asia 2014), 33(6).

8. Ibraheem Alhashim, Honghua Li, Kai Xu, Junjie Cao, Rui Ma, and Hao Zhang
   Topology-Varying 3D Shape Creation via Structural Blending
   ACM Transactions on Graphics (SIGGRAPH 2014), 33(4).

9. Honghua Li, Hao Zhang, Yanzhen Wang, Junjie Cao, Ariel Shamir, and Daniel Cohen-Or
   Curve Style Analysis in a Set of Shapes
   Computer Graphics Forum (Eurographics 2014), 32(6).

10. Honghua Li, Ibraheem Alhashim, Hao Zhang, Ariel Shamir, and Daniel Cohen-Or
    Stackabilization
    ACM Transactions on Graphics (SIGGRAPH Asia 2012), 31(6).

11. Kai Xu, Honghua Li, Hao Zhang, Daniel Cohen-Or, Yueshan Xiong, and Zhi-Quan Cheng
    Style-Content Separation by Anisotropic Part Scales
    ACM Transactions on Graphics (SIGGRAPH Asia 2010), 29(5).

12. Hao Fang, Zhi-Quan Cheng, Hong-Hua Li, Jun Li, Yin chen, and Gang Dang
    2D Shape Deformation and Registration Using Structural Graph Nodes
    International Conference on Computer Animation and Social Agents, short paper, 2010.

13. Z.-Q. Cheng, W. Jiang, G. Dang, R. Martin, J. Li, H. Li, Y. Chen, Y. Wang, B. Li, K. Xu, and S. Jin
    Non-rigid Registration in 3D Implicit Vector Space
    In Proc. of Shape Modeling International, Aix-en-Provence, France, 2010.

14. Jun Li, Zhiquan Cheng, Honghua Li, and Shiyao Jin
    An algorithm of Laplacian-based 3D surface registration
    Journal of System Simulation, Vol. 21 Suppl. 1, pp. 113-117, 2009.

15. Honghua Li, Zhiquan Cheng, Jun Li, and Shiyao Jin
    Mesh Dense Correspondence Computation based on Harmonic Field
    Journal of System Simulation, Vol. 21 Suppl. 1, pp. 6-9, 2009.

16. Honghua Li, Zhiquan Cheng, Jun Li, and Shiyao Jin
    3D Surface Correspondence based on SIFT Features of Depth Image
    Journal of System Simulation, Vol. 21 Suppl. 1, pp. 15-19, 2009.

Professional Service

Program Committee – ICVRV 2017
Reviewer:
SIGGRAPH 2016, **SIGGRAPH Asia** 2017, **Eurographics** 2015, 2017, 2018
Graphics Interface 2014, **Graphical Models** 2015, **Computer & Graphics** 2016, **ICVRV** 2017
Machine Vision and Application 2018

Work Experience

Machine Vision and Graphics Scientist, July – Dec 2017
Rentong Intelligence Inc., Shenzhen, China
Topics: 2D and 3D object recognition and localization for industrial robotics

3D Modeling Scientist, July 2015 – Dec 2016
Avatar Technology Inc., Changsha, China
Topics: 3D human body model acquisition

Research Assistant, Sep 2012 – Dec 2012
Simon Fraser University & iWonder Inc., Canada
Topics: Interactive mobile application for 3D shape assembly on iOS
Faculty: Hao (Richard) Zhang

Teaching Assistant, Sep 2010 – Aug 2014
Simon Fraser University, Canada
Courses: Data Structure, Computer Architecture, Computer Graphics
Faculty: David G. Mitchell, Tony Dixon, Hao Zhang, and Ping Tan

Awards & Honors

2014   President's PhD Scholarship, SFU
2014   Travel and Minor Research Award, SFU
2014   Runner-up award, FAS Faculty Heat of 3MT Competition, SFU
2013   Graduate Fellowship, SFU
2012   Travel and Minor Research Award, SFU
2012   Graduate Fellowship, SFU
2011   Graduate Fellowship, SFU
2010   China Scholar Council 4-year PhD Scholarship

2009   Bronze Medal of Graduate English Debating Competition, NUDT
2009   Fund of Innovation($<3\%$), NUDT
2008   Bronze Medal of Undergraduate Contest in Computer Works, Hunan
2008   Galaxy First-Class Scholarship ($<2\%$), NUDT
2007   Galaxy Second-Class Scholarship ($<2\%$), NUDT
2006   Second Prize of Mathematic Contest in Modeling, Hunan
2005–2009   Outstanding Student, NUDT

Press

Asian Pacific Post, 2015
Fold your toaster into a pocket-square

SFU News, 2015
Computing science grad finds way to create compact furniture

3DPrint.com, 2015
Chinese researchers aim to fold up your whole room with 3D printed, foldable furniture

South China Morning Post, 2015
Move over IKEA: Space-saving foldable furniture may be just a mouse click away

References

Hao (Richard) Zhang	Simon Fraser University	Canada
Daniel Cohen-Or	Tel Aviv University	Israel
Baoquan Chen	Shandong University	China
Ariel Shamir	Interdisciplinary Center	Israel
Andrei Sharf	Ben-Gurion University	Israel
Karan Singh	University of Toronto	Canada
Ping Tan	Simon Fraser University	Canada
Xin Tong	Microsoft Research Asia	China
Chi-Wing Fu	Chinese University of Hong Kong	Hong Kong