

# Shuran Song

## Curriculum Vitae

Department of Computer Science  
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## Education

- 2013 – Present **Ph.D. Candidate in Computer Science**, *Princeton University*.
- 2013 **B.Eng. in Computer Science**, *Hong Kong University of Science and Technology*.  
Winner of Academic Achievement Medal.
- 2012 **Non-degree Exchange Student**, *Georgia Institute of Technology*.

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## Distinctions

- 2016 Siebel Scholar, Class of 2017
- 2016 Amazon Picking Challenge 2016, placed 3rd and 4th
- 2016 Qualcomm Innovation Fellowship Finalists
- 2015 Facebook Ph.D. Fellowship
- 2015 Princeton Innovation's 25 Under 25
- 2013 Princeton Ph.D. Student Fellowship
- 2013 HKUST Academic Achievement Medal
- 2012 Shanda Scholarship
- 2011 Regional Champion (Hong Kong) of Asia-Pacific Robot Contest 2011
- 2009 – 2012 Electronic & Computer Engineering Department Scholarship
- 2009 – 2012 HKUST Dean's List (every semester)

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## Publications

**Shuran Song**, Fisher Yu, Andy Zeng, Angel X. Chang, Manolis Savva, Thomas Funkhouser.  
Semantic Scene Completion from a Single Depth Image.

IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2017.

Oral presentation. [Project Webpage](#)

Yinda Zhang\*, **Shuran Song**\*, Ersin Yumer, Manolis Savva, Joon-Young Lee, Hailin Jin,  
Thomas Funkhouser

Physically-Based Rendering for Indoor Scene Understanding Using Convolutional Neural  
Networks. IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2017.

[Project Webpage](#)

Andy Zeng, **Shuran Song**, Matthias Niessner, Matthew Fisher, Jianxiong Xiao, Thomas  
Funkhouser

3DMatch: Learning Local Geometric Descriptors from RGB-D Reconstructions.

IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2017.

Oral presentation. [Project Webpage](#)

Andy Zeng, K.T. Yu, **Shuran Song**, Daniel Suo, E. Walker Jr., A. Rodriguez, and, Jianxiong Xiao.

Multi-view Self-supervised Deep Learning for 6D Pose Estimation in the Amazon Picking Challenge

International Conference on Robotics and Automation (**ICRA**), 2017. [📄 Project Webpage](#)

**Shuran Song**, Jianxiong Xiao.

Deep Sliding Shapes for Amodal 3D Object Detection in RGB-D Images.

IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2016.

**Spotlight** presentation [📄 Project Webpage](#)

**Shuran Song**, Samuel P. Lichtenberg, Jianxiong Xiao.

SUN RGB-D: A RGB-D Scene Understanding Benchmark Suite.

IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2015.

**Oral** presentation. [📄 Talk](#) [📄 Project Webpage](#)

Zhirong Wu, **Shuran Song**, Aditya Khosla, Fisher Yu, Linguang Zhang, Xiaoou Tang, Jianxiong Xiao.

3D ShapeNets: A Deep Representation for Volumetric Shapes.

IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2015.

**Oral** presentation. [📄 Project Webpage](#)

**Shuran Song**, Jianxiong Xiao.

Sliding Shapes for 3D Object Detection in Depth Images.

Proceedings of the 13th European Conference on Computer Vision (**ECCV**), 2014.

**Oral** presentation. [📄 Talk](#) [📄 Project Webpage](#)

Yinda Zhang, **Shuran Song**, Ping Tan, Jianxiong Xiao.

PanoContext: A Whole-room 3D Context Model for Panoramic Scene Understanding.

Proceedings of the 13th European Conference on Computer Vision (**ECCV**), 2014.

**Oral** presentation. [📄 Project Webpage](#)

**Shuran Song**, Jianxiong Xiao.

Tracking Revisited using RGBD Camera: Unified Benchmark and Baselines.

Proceedings of 14th IEEE International Conference on Computer Vision (**ICCV**), 2013.

[📄 Project Webpage](#)

**Shuran Song**, Linguang Zhang, Jianxiong Xiao.

Robot In a Room: Toward Perfect Object Recognition in Closed Environments.

arXiv:1507.02703 [cs.CV] [📄 Project Webpage](#)

Fisher Yu, Yinda Zhang, **Shuran Song**, Ari Seff, Jianxiong Xiao.

Construction of a Large-scale Image Dataset using Deep Learning with Humans in the Loop.

arXiv:1506.03365 [cs.CV] [📄 Project Webpage](#)

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## Academic Services

Organizer	Organizer of CVPR2016 Tutorial: 3D Deep Learning with Marvin Large-scale Scene Understanding Challenge Workshop ( <b>LSUN</b> ) 2015/2016.
Program committee	Scene Understanding Workshop ( <b>SUNw</b> ) 2014.

Reviewer IEEE Transactions on Pattern Analysis and Machine Intelligence (**PAMI**)  
International Journal of Computer Vision (**IJCV**)  
IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**)  
European Conference on Computer Vision (**ECCV**)  
ACM **SIGGRAPH** Asia  
International Conference on Robotics and Automation (**ICRA**)  
Computer Vision and Image Understanding (**CVIU**)  
Neurocomputing  
Image and Vision Computing (**ICV**)

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## Talks

June 2015 SUN RGB-D: A RGB-D Scene Understanding Benchmark Suite. CVPR 2015. [📺 Video](#)  
Sep 2014 Sliding Shapes for 3D Object Detection in Depth Images. ECCV 2014. [📺 Video](#)  
Aug 2014 A Big 3D Data Approach to Scene Understanding. Microsoft Research Asia.  
Aug 2014 A Big 3D Data Approach to Scene Understanding. Tsinghua University.  
Aug 2014 A Big 3D Data Approach to Scene Understanding. National Laboratory of Pattern Recognition (NLPR), Chinese Academy of Sciences.

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## Press Coverage

Discovery: Research at Princeton [📺](#) [Yearly Magazine, Page 30-31]  
Princeton Computer Science Department News [📺](#) [link](#)

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## Teaching

Princeton COS429 Computer Vision – Teaching Assistant and Guest Lecturer  
Princeton COS126 General Computer Science – Teaching Assistant  
HKUST ELEC125 Introduction to Electro-Robot Design – Teaching Assistant  
HKUST ELEC121 A System View of Communications: from Signals to Packets – Teaching Assistant