# Qi Sun

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**WORK** Research Scientist

June 2018 - Now

Adobe Research, San Jose, CA

**EDUCATION** Doctor of Philosophy

Aug. 2013 - May 2018

 Center of Visual Computing, Computer Science, Stony Brook University Advisor: Distinguished Professor Arie E. Kaufman Thesis: Computational Methods for Immersive Perception

**Bachelor of Science** 

Aug. 2013

Mathematics

Taishan Honors College, Shandong University, China Sep. 2010 - Aug. 2013

• Computer Science and Technology Shandong University, China

Sep. 2009 - Sep. 2010

**PUBLICATIONS** 

Towards Virtual Reality Infinite Walking: Dynamic Saccadic Redirection

**Qi Sun**, Anjul Patney, Li-Yi Wei, Omer Shapira, Jingwan Lu, Paul Asente, Suwen Zhu, Morgan McGuire, David Luebke, Arie Kaufman SIGGRAPH 2018

Perceptually-Guided Foveation for Light Field Displays

**Qi Sun**, Fu-Chung Huang, Joohwan Kim, Li-Yi Wei, David Luebke, Arie Kaufman SIGGRAPH Asia 2017

Perceptual Studies for Foveated Light Field Displays

Joohwan Kim, **Qi Sun**, Fu-Chung Huang, Li-Yi Wei, David Luebke, Arie Kaufman arXiv:1708.06034

Mapping Virtual and Physical Reality

**Qi Sun**, Li-Yi Wei and Arie E. Kaufman SIGGRAPH 2016

Poster: Buyers Satisfaction in A Virtual Fitting Room Scenario Based on Realism of Avatar

**Qi Sun**, Seyedkoosha Mirhosseini, Ievgeniia Gutenko, Ji Hwan Park, Charilaos Papadopoulos, Bireswar Laha, and Arie E. Kaufman IEEE Symposium on 3D User Interfaces, 3DUI 2015

Benefits of 3D Immersion for Virtual Colonoscopy

Koosha Mirhosseini, **Qi Sun**, Krishna Gurijala, Bireswar Laha, Arie Kaufman IEEE Visualization Workshop on 3DVis 2014

Data-Driven Human Motion Synthesis Based on Angular Momentum Analysis Ping Hu, Qi Sun, Xiangxu Meng, and Jingliang Peng IEEE International Symposium on Circuits and Systems, IEEE-ISCAS 2013

# Modeling 3D Faces from Samplings via Compressive Sensing

Qi Sun, Yanlong Tang, and Ping Hu

International Conference on Digital Image Processing, ICDIP 2013

## Kinect-Based Automatic 3D High-Resolution Face Modeling

Qi Sun, Yanlong Tang, Ping Hu, and Jingliang Peng

International Conference on Image Analysis and Signal Processing, IEEE-IASP 2012

#### **EXPERIENCE**

## Research Intern

Jul. 2017 - Sep. 2017

Adobe Research, Procedural Imaging Group (San Jose, CA)

- Augmented Reality
- With Paul Asente, Cynthia Lu and Li-Yi Wei

#### Research Intern

April. 2017 - Jul. 2017

NVIDIA Research, New Experiences Group (Redmond, WA)

- Computational perception in VR
- With Anjul Patney, Morgan McGuire, Omer Shapira, Aaron Lefohn and David Luebke

#### Research Intern

Jun. 2016 - Aug. 2016

NVIDIA Research, New Experiences Group (Santa Clara, CA)

- Computational display and perceptual rendering for next generation VR.
- With Fu-Chung Huang, Joohwan Kim and David Luebke

# Research Assistant

Jan. 2014 - present

Stony Brook University

Research Interests: parameterization, non-linear rendering, point cloud processing/modeling and their applications in virtual reality and scientific visualization.

Research Intern Nov. 2012 - Feb. 2013

Microsoft Research Asia, Hardware Computing Group (Beijing, China)

- Worked on an audio-visual fusion project for detecting Kinect users' attention in order to optimize the device's response.
- Developed a data set for camera-based gaze estimation in remote scenario.

## **Undergraduate Research Assistant**

Sep. 2010 - Nov. 2012

Research Center for HCI and VR Shandong University, Jinan, China

### PRESS/MEDIA

BBC Click TV Program, SIGGRAPH blog, IEEE, Adobe News, NVIDIA Blog, Two Minute Papers, Stony Brook News, Road to VR, Hackaday, VR Focus, VR World, Inverse, ScienceDaily, eurekAlert, newsAtlas, Sohu.com (Chinese), RedShark News, VR Soldier, 4gamer (Japanese) Virtual Reality Magazine (German), Microsiervos (Spanish) etc.

Towards Virtual Reality Infinite Walking

Business Wire (SIGGRAPH Technical Papers Preview), Seamless Virtual Reality News (Japanese), leiphone.com/sina.cn etc. (Chinese), Tencent gameinstitute

2016 white paper, Game II DOOSAN Gallery New York

Mapping Virtual and Physical Reality

Road to VR, Seamless Virtual Reality News (Japanese)

Perceptually-Guided Foveation for Light Field Displays

TEACHING/ Guest Lecturer

ADVISTING CSE 564: Visualization, Stony Brook University 2018 Spring

**Teaching Assistant** 

CSE 214: Computer Science II, Stony Brook University 2013 Fall

Mentor

CSE 593: Independent Study in Computer Science,

Stony Brook University 2013 Fall, 2014 Spring

**Advisees** 

Yichao Zhou, PhD student at UC Berkeley

Dushyant Goyal, Masters student at Stony Brook University, Now Machine Learn-

ing Research Engineer at Element Inc

INVITED TALKS/ Towards Virtual Reality Infinite Walking, Talk & Live Demo

**EXHIBITIONS** GPU Technology Conference (GTC), San Jose 2018

**Computational Methods for Immersive Perception** 

Harvard University, Cambridge 2018 University of Florida, Gainesville 2018

Adobe Research, San Jose 2017

games-cn Webinar 2017

SERVICE Reviewer

SIGGRAPH, IEEE VIS, Computer Graphics Forum (CGF), ACM Transaction on

Graphics (TOG), UIST, IEEE 3DUI, IEEE VR, IEEE Consumer Electronics Magazine

**AWARDS** Stony Brook Computer Science Special Chair Fellowship 2013 - 2014

Outstanding Bachelor Thesis Award of Shandong Province, China 2013