# Qi Sun

www.qisun.me qisun0@gmail.com

**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 Kaufman Dissertation: Computational Methods for Immersive Perception

Committee: Arie Kaufman, Hong Qin, Xiaojun Bi, David Luebke, Li-Yi Wei

Bachelor of Science Aug. 2013

• Mathematics

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

• Computer Science Shandong University, China

Sep. 2009 - Sep. 2010

**PUBLICATIONS** 

Reducing Simulator Sickness with Perceptual Camera Control

Ping Hu, **Qi Sun**, Piotr Didyk, Li-Yi Wei, Arie Kaufman SIGGRAPH Asia 2019

Learning to Reconstruct 3D Manhattan Wireframes from a Single Image Yichao Zhou, Haozhi Qi, Simon Zhai, Qi Sun, Zhili Chen, Li-Yi Wei, Yi Ma ICCV (Oral Presentation) 2019

A Transparent Display with Per-Pixel Color and Opacity Control

TJ Rhodes, Gavin Miller, Li-Yi Wei, **Qi Sun**, Daichi Ito SIGGRAPH 2019 Emerging Technologies

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)

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

#### Research Intern

April. 2017 - Jul. 2017

NVIDIA Research, New Experiences Group (Redmond, WA)

- 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)

- With Fu-Chung Huang, Joohwan Kim and David Luebke

#### Research Intern

Nov. 2012 - Feb. 2013

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

## SELECTED PRESS/MEDIA

#### Adobe Glasswing Transparent Display

The Verge, CNET, Axios, Next Reality, Printed Electronics World, TechHQ etc.

#### **Towards Virtual Reality Infinite Walking**

BBC News, 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, Stylus, InAVate, 4gamer (Japanese) Virtual Reality Magazine (German), Microsiervos (Spanish) etc.

#### Mapping Virtual and Physical Reality

SIGGRAPH Technical Papers Preview, Business Wire, Seamless Virtual Reality News (Japanese), leiphone.com/sina.cn etc. (Chinese), Tencent gameinstitute 2016 white

## paper, Game II DOOSAN Gallery New York

	<b>Perceptually-Guided Foveation for Light Field Displays</b> Road to VR, Seamless Virtual Reality News (Japanese)	
TEACHING/ ADVISTING	Guest Lecturer CSE 564: Visualization, Stony Brook University	2018 Spring
	<b>Teaching Assistant</b> 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 Yuanming Hu, PhD student at MIT Sandra Malpica, PhD student at University of Zaragoza Yichao Zhou, PhD student at UC Berkeley Dushyant Goyal, Masters student at Stony Brook Universit ing Research Engineer at Element Inc	y, Now Machine Learn-
INVITED TALKS	Human Learning: Understanding and Computing the Eye Schloss Dagstuhl, Wadern, Germany Max-Planck-Institut für Informatik, Saarbrücken, Germany Peking University, Beijing, China	2019

Wayfair Inc., Boston, MA

Reviewer

Human Learning: Understanding and Computing the Eyes and Brain in VR				
Schloss Dagstuhl, Wadern, Germany	2019			
Max-Planck-Institut für Informatik, Saarbrücken, Germany	2019			
Peking University, Beijing, China	2019			
Zhejiang University, Hangzhou, China	2019			
USTC, Hefei, China	2019			
Microsoft Research Asia, Beijing, China	2019			
miHoYo Research, Shanghai, China	2019			
Industrial Innovations in the Age of VR/AR				

Towards Virtual Reality Infinite Walking, Talk & Live Demo	
Adobe Tech Summit, San Francisco, CA	2019
GPU Technology Conference (GTC), San Jose, CA	2018

2019

Computational Methods for Immersive Perception	
Harvard University, Cambridge, MA	2018
University of Florida, Gainesville, FL	2018
Adobe Research, San Jose, CA	2017
games-cn Webinar	2017

SERVICE	Conference Committee	
	ACM SIGGRAPH Asia Technical Briefs and Posters	2019
	ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (i3D)	2019

ACM SIGGRAPH, ACM CHI, IEEE Visualization, Computer Graphics Forum (CGF), ACM Transaction on Graphics (TOG), ACM User Interface Software and Technology (UIST), ACM i3D, IEEE 3D User Interfaces (3DUI), IEEE VR [both Conference

	and Journal tracks], IEEE ISMAR, ACM Symposium on Applied Perception (SAP), IEEE Consumer Electronics Magazine Other		
	Adobe Research PhD fellowship committee	2018 - 2019	
	Adobe Research Women-in-Technology Scholarship	2019	
AWARDS	Stony Brook Computer Science Special Chair Fellowship Outstanding Bachelor Thesis Award of Shandong Province, China	2013 - 2014 2013	
GRANTED PATENTS	Adjusting an Angular Sampling Rate during Rendering Utilizing Gation	during Rendering Utilizing Gaze Informa-	
	<b>Qi Sun</b> , Fu-Chung Huang, Joohwan Kim and David Luebke US10395624B2, granted 2019-08-27		

System and Method for Generating a Progressive Representation Associated with Surjectively Mapped Virtual and Physical Reality Image Data Arie Kaufman, Qi Sun and Li-Yi Wei US10403043B2, granted 2019-09-03