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 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

Perceptually-Guided Foveation for Light Field Displays
Road to VR, Seamless Virtual Reality News (Japanese)

TEACHING/ ADVISTING

Guest Lecturer
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
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 University, Now Machine Learning Research Engineer at Element Inc

INVITED TALKS

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
Wayfair Inc., Boston, MA 2019

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

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

Reviewer
ACM SIGGRAPH, 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 2013 - 2014
Outstanding Bachelor Thesis Award of Shandong Province, China 2013

GRANTED PATENTS

Adjusting an angular sampling rate during rendering utilizing gaze information
Qi Sun, 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