Qi Sun

www.qisun.me
qisun0@gmail.com

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

Road to VR, Hackaday, VR Focus, VR World, Inverse, ScienceDaily, eurekAlert, newsAtlas, SIGGRAPH blog, Sohu.com 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/ MENTORING

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

INVITED TALKS

Towards Virtual Reality Infinite Walking
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), 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

SKILLS

Programming Languages: C++, Python, Matlab, C#, C, Shell
Libraries and Tools: OpenGL, GLSL, HLSL, Unity Engine, NVIDIA CUDA/OptiX, Numerical Optimization (Ceres, Mosek etc), CGAL, PCL, Kinect, LaTeX