

Yu Guo	(update: 09/13/2021)	https://tflsguoyu.github.io/	tflsguoyu@gmail.com
CURRENT	Tencent Game AI Research Center Senior Researcher		Playa Vista, CA, US Sept. 2021 – present
EDUCATION	University of California, Irvine Ph.D in Computer Science Dissertation: Multi-scale Appearance Modeling of Complex Materials. Advisor: Shuang Zhao		Irvine, CA, US Sept. 2016 – Aug. 2021
	University of Chinese Academy of Sciences M.S. in Computer Science Thesis: GPU-based Soft Body Deformation with Nonlinear Finite Element Method. Advisor: Pheng Ann Heng (CUHK)		Beijing & Shenzhen, China Sept. 2010 – Jul. 2013
	Central South University B.S. in Mathematics and Applied Mathematics Thesis: Forces Distribution with Fractal Theory in High Velocity Compaction Technology.		Changsha, China Sept. 2006 – Jul. 2010
PUBLICATIONS	“Beyond Mie Theory: Systematic Computation of Bulk Scattering Parameters based on Microphysical Wave Optics” by Yu Guo, Adrian Jarabo and Shuang Zhao. <i>ACM Transactions on Graphics (TOG)</i> , 2021 (presented at SIGGRAPH Asia ’21).		
	“MaterialGAN: Reflectance Capture using a Generative SVBRDF Model” by Yu Guo, Cameron Smith, Miloš Hašan, Kalyan Sunkavalli and Shuang Zhao. <i>ACM Transactions on Graphics (TOG)</i> , 2020 (presented at SIGGRAPH Asia ’20).		
	“A Bayesian Inference Framework for Procedural Material Parameter Estimation” by Yu Guo, Miloš Hašan, Lingqi Yan and Shuang Zhao. <i>Computer Graphics Forum (CGF)</i> , 2020 (presented at Pacific Graphics ’20).		
	“Position-Free Monte Carlo Simulation for Arbitrary Layered BSDFs” by Yu Guo, Miloš Hašan and Shuang Zhao. <i>ACM Transactions on Graphics (TOG)</i> , 2018 (presented at SIGGRAPH Asia ’18).		
	“A Virtual Try-on System for Prescription Eyeglasses” by Qian Zhang, Yu Guo, Pierre-Yves Laffont, Tobias Martin, and Markus Gross. <i>IEEE Computer Graphics and Applications (CG&A)</i> , 2017.		
	“3D Faces are Recognized More Accurately and Faster than 2D Faces, but with Similar Inversion Effects” by Derric Eng, Belle Yick, Yu Guo, Hong Xu, Miriam Reiner, Tat-Jen Cham, and Annabel Chen. <i>Vision Research</i> , 2017.		
	“Physically Based Video Editing” by Jean-Charles Bazin, Claudia Plüss (Kuster), Yu Guo, Tobias Martin, Alec Jacobson, and Markus Gross. <i>Computer Graphics Forum (CGF)</i> , 2016 (presented at Pacific Graphics ’16).		
	“GPU Accelerated CBCT Reconstruction from Few Views with SART and TV Regularization” by Ping Liu, Lin Shi, Defeng Wang, Yu Guo, Jianying Li, Jing Qin, and Pheng-Ann Heng. <i>International Workshop on High Performance Computing for Biomedical Image Analysis (HPC-MICCAI)</i> , 2013.		
	“Real-time Hand Detection Based on Multi-stage HOG-SVM Classifier” by Jiang Guo, Jun Cheng, Jianxin Pang, and Yu Guo. <i>International Conference on Image Processing (ICIP)</i> , 2013.		

“A GPU-Accelerated Finite Element Solver for Simulation of Soft-Body Deformation” by **Yu Guo**, Jianying Li, Ping Liu, Qiong Wang, and Jing Qin. *International Conference on Information and Automation (ICIA)*, 2013.

“A Survey on Simulation of Soft Tissue Deformation in Virtual Surgery(In Chinese)” by **Yu Guo**, Jing Qin. *Journal of Integration Technology (JIT)*, 2013.

“Fall over or Sliding down?” by **Yu Guo**. *SIGGRAPH Asia (Poster)*, 2012.

“A Master-Slave Robotic Simulator Based on GPUDirect” by Jianying Li, **Yu Guo**, Heye Zhang, Yongming Xie. *International Conference on Intelligent Robots and Systems (IROS)*, 2012.

WORKING
EXPERIENCES

Facebook Reality Lab Sausalito, CA, US
Research Intern at Monaco Team July. 2020 – Sept. 2020

Working on Eye caustics rendering and its inverse problem.
Advisor: [Christophe Hery](#), [Olivier Maury](#)

Adobe Research San Jose, CA, US
Research Intern at Emerging Graphics Group July. 2019 – Sept. 2019

Working on Material capture and estimation.
Advisor: [Miloš Hašan](#), [Kalyan Sunkavalli](#)

Megvii (Face++) Research USA Redmond, WA, US
Research Intern July. 2018 – Sept. 2018

Working on Human face shadow/highlight removal and face relighting.
Advisor: [Jue Wang](#)

Autodesk San Francisco, CA, US
Research Intern at Core Rendering team July. 2017 – Sept. 2017

Working on efficient volumetric rendering of 3D-printing materials.
Advisor: [Miloš Hašan](#)

Nanyang Technological University Singapore
Research Associate at BeingThere Centre (BTC), IMI Oct. 2013 – Mar. 2016

(BTC is a US\$18 million international research project on 3D Telepresence and Virtual Reality between ETH ([Markus Gross](#)), UNC ([Henry Fuchs](#)) and NTU ([Nadia Magnenat Thalmann](#)).)

Working on stereo rendering; physical-based video manipulation; virtual try-on system for prescription glasses.

Collaborators: [Miriam Reiner](#), [Jean-Charles Bazin](#), [Tobias Martin](#), [Claudia Plüss](#), [Pierre-Yves Lafont](#), [Qian Zhang](#)

Advisor: [Tat-Jen Cham](#)

Shenzhen Institutes of Advanced Technology Shenzhen, China
Research Assistant at HCI lab Sept. 2011 – Jul. 2013

Working on mesh processing; soft body simulation; virtual surgery; CUDA acceleration.

Advisor: Pheng-Ann Heng

REVIEWS

SIGGRAPH, SIGGRAPH Asia, Eurographics, Computer Graphics Forum