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CURRENT POSITION	<b>University of California, Irvine (UCI)</b> <i>Ph.D Student in Computer Science</i> Advisor: <a href="#">ZHAO Shuang</a> Interests: Computer Graphics	<b>Irvine, CA, US</b> <b>Sept. 2016 – present</b>
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EDUCATION	<b>University of Chinese Academy of Sciences (UCAS)</b> <i>M.S. in Computer Science</i> Thesis: GPU-based Soft Body Deformation with Nonlinear Finite Element Method. Advisor: <a href="#">HENG Pheng-Ann (CUHK)</a> Major courses: Combinatorial Mathematics; Matrix Analysis; Stochastic Process; Computer Aided Geometric Design; Computer Graphics; Computer Vision; Visualization.	<b>Beijing &amp; Shenzhen, China</b> <b>Sept. 2010 – Jul. 2013</b>
	<b>Central South University (CSU)</b> <i>B.S. in Mathematics and Applied Mathematics</i> Thesis: Forces Distribution with Fractal Theory in High Velocity Compaction Technology. Major courses: Mathematical Analysis; Linear Algebra; Spatial and Analytical Geometry; Real Analysis & Functional Analysis; Modern Algebra; Topology; Partial Differential Equation; Optimal Theory.	<b>Changsha, China</b> <b>Sept. 2006 – Jul. 2010</b>

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PUBLICATIONS	Jean-Charles Bazin, Claudia Pluss (Kuster), <b>Yu Guo</b> , Tobias Martin, Alec Jacobson, Markus Gross. “ <b>Physically Based Video Editing</b> ”. <i>Computer Graphics Forum (PG 2016)</i> , 2016	
	Derric Eng, Belle Yick, <b>Yu Guo</b> , Hong Xu, Miriam Reiner, Tat-Jen Cham, Annabel Chen. “ <b>Holistic and featural processing for 2D and 3D face recognition</b> ”. <i>The 11th Asia-Pacific Conference on Vision (APCV 2015)</i> , Singapore, 2015	
	Ping Liu, Lin Shi, Defeng Wang, <b>Yu Guo</b> , Jianying Li, Jing Qin, Pheng-Ann Heng. “ <b>GPU Accelerated CBCT Reconstruction from Few Views with SART and TV Regularization</b> ”. <i>The Sixth International Workshop on High Performance Computing for Biomedical Image Analysis (HPC-MICCAI 2013)</i> , Japan, 2013	
	Jiang Guo, Jun Cheng, Jianxin Pang, <b>Yu Guo</b> . “ <b>Real-time Hand Detection Based on Multi-stage HOG-SVM Classifier</b> ”. <i>2013 IEEE International Conference on Image Processing (ICIP 2013)</i> , Australia, 2013	
	<b>Yu Guo</b> , Jianying Li, Ping Liu, Qiong Wang, Jing Qin. “ <b>A GPU-Accelerated Finite Element Solver for Simulation of Soft-Body Deformation</b> ”. <i>2013 IEEE International Conference on Information and Automation (ICIA 2013)</i> , China, 2013	
	<b>Yu Guo</b> , Jing Qin. “ <b>A Survey on Simulation of Soft Tissue Deformation in Virtual Surgery</b> ”(In Chinese). <i>Journal of Integration Technology</i> , 2013	
	<b>Yu Guo</b> . “ <b>Fall over or Sliding down?</b> ” <i>ACM SIGGRAPH Asia 2012, Poster</i> , Singapore, 2012	
	Jianying Li, <b>Yu Guo</b> , Heye Zhang, Yongming Xie. “ <b>A Master-Slave Robotic Simulator Based</b>	

on **GPUDirect**". *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2012)*, Portugal, 2012

## RESEARCH EXPERIENCES

### Nanyang Technological University (**NTU**)

Singapore

Research Associate at Institute for Media Innovation (**IMI**)

- *Project in BeingThere Centre, (**BTC-NTU** & **BTC-ETH**)* **June 2014 – Mar. 2016**  
Major works: Flow estimation of image pairs (Optical Flow/Sift Flow); Face tracking and reconstruction by Kinect and Faceshift.  
Collaborators: **Tobias MARTIN** (*ETH Zürich*), **Pierre-Yves LAFFONT** (*ETH Zürich*), Qian Zhang
- *Project in BeingThere Centre, (**BTC-NTU** & **BTC-ETH**)* **Oct. 2013 – May 2014**  
Major works: Physical-based video manipulating; Video segmentation (foreground subtraction); Multi-view 3D reconstruction (structure from motion); 3D pose estimation.  
Collaborators: **Jean-Charles BAZIN** (*Disney Zürich*), **Tobias MARTIN** (*ETH Zürich*), **Claudia PLÜSS** (*ETH Zürich*)
- *Project in BeingThere Centre, (**BTC-NTU** & **HSS-NTU**)* **Dec. 2013 – Dec. 2014**  
Major works: 2D and stereo face rendering.  
Collaborators: **Miriam REINER** (*Technion*), **Belle Yee Ying YICK** (*NTU*)

### Shenzhen Institutes of Advanced Technology (**SIAT**), Chinese Academy of Sciences (**CAS**)

Shenzhen, China

- *Research project related to thesis* **Sept. 2011 – Jul. 2013**  
Major works: Soft body deformation; Mesh simplification; Delaunay tetrahedralization; Loop subdivision; Displacement mapping using GLSL; Finite Element Analysis; CUDA implementation; 6 DOF haptic device.
- *Project granted by Shenzhen government* **Aug. 2012 – Feb. 2013**  
Major works: Volume/Surface rendering; CT reconstruction with CUDA implemented.

### Central South University (**CSU**)

Changsha, China

- *Project leader in National University Student Innovation Program.* **Sept. 2008 – Dec. 2009**  
Major works: Calculation of fractal dimension; Visualization of fractal graphics; Simulation of force distribution in High Velocity Compaction.

## HONOURS & AWARDS

2nd class prize in 4th ACM CSU Collegiate Programming Contest.	CSU, China	2010
1st class prize in 3rd CSU Mathematical Contest in Modeling.	CSU, China	2008
1st class prize in National High School Student Mathematics Competition.	China	2005

## USEFUL TOOLS

**Programming Tools:** C/C++, CUDA, MATLAB  
**CG & CV:** OpenGL, GLSL, Meshlab, OpenCV, Visual SFM, Kinect, Faceshift  
**Others:** Mendeley, Git,  $\text{\LaTeX}$