GUO, Yu **update: 06/06/2016**

CONTACT INFORMATION

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CURRENT POSITION

University of California, Irvine (UCI) **Irvine, CA, US**
Ph.D Student in Computer Science **Sept. 2016 – present**
Advisor: ZHAO Shuang
Interests: Computer Graphics

EDUCATION

University of Chinese Academy of Sciences (UCAS) **Beijing & Shenzhen, China**
M.S. in Computer Science **Sept. 2010 – Jul. 2013**
Thesis: GPU-based Soft Body Deformation with Nonlinear Finite Element Method.
Advisor: HENG Pheng-Ann (CUHK)
Major courses: Combinatorial Mathematics; Matrix Analysis; Stochastic Process; Computer Aided Geometric Design; Computer Graphics; Computer Vision; Visualization.

Central South University (CSU) **Changsha, China**
B.S. in Mathematics and Applied Mathematics **Sept. 2006 – Jul. 2010**
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.

PUBLICATIONS

Derric Eng, Belle Yick, **Yu Guo**, Hong Xu, Miriam Reiner, Tat-Jen Cham, Annabel Chen. "**Holistic and featural processing for 2D and 3D face recognition**". *The 11th Asia-Pacific Conference on Vision (APCV 2015)*, Singapore, July 10-12, 2015

Ping Liu, Lin Shi, Defeng Wang, **Yu Guo**, Jianying Li, Jing Qin, Pheng-Ann Heng. "**GPU Accelerated CBCT Reconstruction from Few Views with SART and TV Regularization**". *The Sixth International Workshop on High Performance Computing for Biomedical Image Analysis (HPC-MICCAI 2013)*, Nagoya, Japan, Sep.22-26, 2013

Jiang Guo, Jun Cheng, Jianxin Pang, **Yu Guo**. "**Real-time Hand Detection Based on Multi-stage HOG-SVM Classifier**". *2013 IEEE International Conference on Image Processing (ICIP 2013)*, Melbourne, Australia, Sep.15-18, 2013

Yu Guo, Jianying Li, Ping Liu, Qiong Wang, Jing Qin. "**A GPU-Accelerated Finite Element Solver for Simulation of Soft-Body Deformation**". *2013 IEEE International Conference on Information and Automation (ICIA 2013)*, Yinchuan, China, Aug.26-28, 2013

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

Yu Guo. "**Fall over or Sliding down?**" *ACM SIGGRAPH Asia 2012, Poster*, Singapore, Nov.28-Dec.1, 2012

Jianying Li, **Yu Guo**, Heye Zhang, Yongming Xie. "**A Master-Slave Robotic Simulator Based on GPUDirect**". *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2012)*, Vilamoura, Algarve, Portugal, Oct.7-12, 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:
  Collaborators: Tobias MARTIN *(ETH Zürich)*, Pierre-Yves LAFFONT *(ETH Zürich)*

- *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, Python
CG & CV: OpenGL, GLSL, Meshlab, OpenCV, Visual SFM, Kinect, Faceshift
Others: Mendeley, Git, LaTeX