

SHAOTING ZHANG

800 Dongchuan Road, Shanghai, 200240, P.R.China

(086) 021-34204391; zsttsz@gmail.com

Education

- **Shanghai Jiao Tong University**—Shanghai, P.R.China
M.S., Image Guided Surgery and Therapy Laboratory (IGST), Software Engineering
 - Projected Graduation Date: June, 2007
- **Zhe Jiang University**—Zhejiang, P.R.China
B.E., Software Engineering
 - GPA: 3.70/4.0, 85.81/100 (Overall), 3.89/4.0, 89.4/100 (Major)
 - Graduation Date: June, 2005

Main Achievements

- 2006 HP scholarship for outstanding students in China (top 1%)
- 2004-2005 Admission to the graduating school of SJTU exempting entrance exams (top 3%)
- 2003-2004 The Second Class Scholarship of ZJU (top 15%)
- 2002-2003 The Third Class Scholarship of ZJU (top 30%)

Research Experience

- **Soft Tissue Modeling**—Natural Science Foundation of China, NO.70581171
Team Leader, Mar. 2005–Jun. 2008, IGST/SJTU, Shanghai
 - Mass-Spring, Constrained Particle System and M-Rep are employed as the mathematical models to simulate the deformation of soft tissue.
 - Platform: Windows XP, VC7.0 (MFC), VTK4.2/5.0, OpenGL
- **Multi-Core Based Virtual Surgery**—Innovation Center with Intel, Shanghai
Team Leader, Apr. 2006–Mar. 2007, IGST/SJTU, Shanghai
 - The multi-thread system consists of volume mesh generation, deformable object simulation, collision detection, collision response, cutting and force feedback modules.
 - Platform: Ubuntu, Python (wxPython), VTK5.0, OpenHaptic (PHANToM Desktop)
- **1.5D Barcode Recognition**—The Summer Project for Mon-net, an IT company in Shanghai
Teaching Assistant, Jul. 2006–Sep. 2006, SE/SJTU, Shanghai
 - Capture the image from the camera -> Extract the barcode -> Calibrate the image -> Recognize the barcode based on scanning lines algorithm
 - Platform: Windows XP, VC8.0 (MFC)
- **Network Management**—For School of Software, SJTU
Network Manager, Sep. 2005–present, SE/SJTU, Shanghai
 - Configure and Maintain the laboratory's Linux server (SVN,VPN,FTP,Wiki,Web).
 - Maintain the laboratory's Homepage (www.se.sjtu.edu.cn/igst).

Selected Publications

- **Zhang, S.** and Gu, L.: Real-Time Virtual Surgery Simulation Employing MM-Model and Adaptive Spatial Hash. *16th International Conference on Artificial Reality and Telexistence (ICAT2006)*. Hangzhou, P.R.China. LNCS 4282, pp. 666-675, 2006
- Qian, F., Gu, L. and **Zhang, S.**: A Visual Validation Method Based on Point Mappings for Medical Image Segmentation. *IEEE 2006 International Conference of the Engineering in Medicine and Biology Society (EMBC2006)*. New York, USA. proceedings
- **Zhang, S.** and Gu, L.: The Framework for Real-Time Simulation of Deformable Soft-Tissue Using a Hybrid Elastic Model. *3rd International Symposium on Biomedical Simulation 2006 (ISBMS'06)*. Zurich, Switzerland. LNCS 4072, pp. 75-83, 2006.
- **Zhang, S.** and Gu, L.: Real-Time Simulation of Deformable Soft Tissue Based on Mass-Spring and Medial Representation. *Computer Vision for Biomedical Image Applications (a workshop of ICCV2005)*. Beijing, P.R.China. LNCS 3875, pp. 419-427, 2005.

Patents

- Gu, L., **Zhang, S.** and Eitz, M.: Real-time collision detection algorithm in surgical simulation. (Under processing)
- Gu, L., **Zhang, S.** and Zhang, J.: Deformable object simulation based on MM-Model. (Under processing)
- Gu, L., Qian, F. and **Zhang, S.**: Point-mapping based validation of medical image segmentation. (Under processing)

Skills

- **English Ability:** GRE (V530, Q770, AW4.0), TOEFL (670, 5.0)
- **Computer Languages:**
 - Proficient in C++, Java(SCJP), Python
 - Familiar with C (in the Unix environment), SQL, Bash
- **Toolkits and Systems:**
 - Proficient in VS Studio, Eclipse, Make, GDB, OpenGL and VTK
 - Familiar with Matlab, Rational Rose, Oracle, SVN

Personalities and Hobbies

- **Creative, humorous and persistent. Good at communication and cooperation.**
 - I created a novel deformation model individually and published a paper during the undergraduate study due to one semester's hard work and occasionally inspiration.
 - As the student manager of IGST and team leader of Modeling Group, I assist professor to maintain a harmonic environment and enhance the efficiency of the team.
 - Volunteer of EMBC2005 and MIAR2006. We collaborated to control the projector and light in the room, switch slides for lecturers and troubleshoot device related problems.
- **Photographing, playing basketball and reading books.**
 - The second class prize in a national photography competition: Ecological Anji 2005.
 - The Basketball Championship of the Software Engineering College Cup, 2005-2006. I was the shooting guard and the vice captain of the team.