# Bin Liu



# Work Experience

2014-Present School of Software Technology at Daian University of Technology, Associate Professor
2009-2014 School of Software Technology at Daian University of Technology, Lecturer

# Education

Biomedical Engineering, Dalian University of Technology, China, Ph.D.
Mechanical Engineering, Dalian University of Technology, China, M.S.
Mechanical Engineering, Dalian University of Technology, China, B.S.

# Areas of Research Interest

Computer Vision and Graphics Medical Image Processing and 3-D Reconstruction Computer-Assisted Preoperative Planning and Simulation

#### Courses

C Program Design Object Oriented Method and C++ Program Design Computer Graphics

#### **Research Projects**

- 2014.01-2016.12 "National Natural Science Foundation of China", Grant No. 61300085
- 2016.01-2019.12 "National Natural Science Foundation of China", Grant No. 61572101
- 2013.01-2016.12 "Scientific Research Fund of Liaoning Provincial Education Department of China", Grant No. L2013012

# Selected Publications

 Bin Liu, Hui Zhang, Shungang Hua, Qianfeng Jiang, Rui Huang, Wenpeng Liu, Shuo Zhang, Bingbing Zhang, Zongge Yue. An automatic segmentation system of acetabulum in sequential CT images for the personalized artificial femoral head design. Computer Methods and Programs in Biomedicine. 2016, 127:318-335

- [2] Bin Liu, Xianyong Jia, Qianfeng Jiang, Rui Huang, Hui Zhang, Chao Wan. A segmentation system based on clustering method for pediatric DTI images. International Journal of Imaging Systems and Technology. 2015, 25(1):102-113.
- [3] Bin Liu, Haojie Li, Xianyong Jia, Hui Zhang, Rui Huang, Zhaoliang Liu, Xu Zhao. An object segmentation method for the color slow-motion videos based on adjacent frames gradual change. Multimedia Tools and Applications. 2015, 74(17): 7285-7329.
- [4] Bin Liu, Shungang Hua, Hui Zhang, Zhaoliang Liu, Xu Zhao, Bingbing Zhang, Zongge Yue. A personalized ellipsoid modeling method and matching error analysis for the artificial femoral head design. Computer-Aided Design. 2014, 56(11): 88-103.
- [5] Bin Liu Xianyong Jia, Hui Zhang, Xin Fan, Chao Wan. Segmentation of Pediatric Diffusion Tensor Magnetic Resonance Imaging Images Based on Adaptive Mean Shift Clustering Method. Journal of Medical Imaging and Health Informatics. 2014, 4(6):901-906.
- [6] Bin Liu, Xinjian Luo, Rui Huang, Chao Wan, Bingbing Zhang, Weihua Hu, Zongge Yue. Virtual plate pre-bending for the long bone fracture based on axis pre-alignment. Computerized Medical Imaging and Graphics. 2014, 38(4):233-244.
- [7] Bin Liu, Haojie Li, Xianyong Jia, Xu Zhao, Zhaoliang Liu, Qiaochu Zhao, Hanwei Zhang. A Simple Method of Rapid and Automatic Color Image Segmentation for Serialized Visible Human Slices. Computers-Electrical Engineering. 2014, 40(3):870-883.
- [8] Bin Liu, Bingbing Zhang, Chao Wan, Yihuan Dong, A non-rigid registration method for cerebral DSA images based on forward and inverse stretching-avoiding bilinear interpolation. Bio-Medical Materials and Engineering. 2014, 24(1):1149-1155.
- [9] Bin Liu, Zhihuan Huang, Xianyong Jia, Zongge Yue. A system for individualized prosthetic modeling of the femoral head. International Journal for Numerical Methods in Biomedical Engineering. 2013, 29(3):380-391.
- [10] Bin Liu, Xianyong Jia, Zhihuan Huang, Haojie Li. An improved system for 3D individualized modeling of the artificial femoral head. The Visual Computer. 2013, 29(12):1259-1267.
- [11] Bin Liu, Qiaochu Zhao, Jiahao Dong, Xianyong Jia, Zongge Yue. A Stretching Transform Based Automatic Non-rigid Registration System for Cerebrovascular DSA Images. International Journal of Imaging Systems and Technology. 2013, 23(2):171-187.
- [12] Haojie Li, Bin Liu, Lei Yi, Yue Guan, Zhong-Xuan Luo. On the tag localization of web video. Multimedia Systems. 2014: 1-8.
- [13] Haojie Li, Lei Yi, Bin Liu, Yi Wang. Localizing relevant frames in web videos using topic model and relevance filtering. Machine Vision and Applications. 2014, 25(7): 1661-1670.
- [14] Haojie Li, Jinhui Tang, Yi Wang, Bin Liu. Looking into the world on Google Maps with view direction estimated photos. Neurocomputing. 2012, 95(7): 2-77.

## Academic Services

#### Academy

ACM Member MICCAI Member CCF Member

#### Regular Reviewer for Journal

IET Image Processing KSII Transactions on Internet and Information Systems Medical-Biological Engineering-Computing International Journal of Medical Robotics and Computer Assisted Surgery Artificial Organs Journal of Medicine and Medical Sciences ASME Journal of Biomechanical Engineering

## TPC for Conference

PCM2013 PC member ICEE2014 PC member CENet2014 PC member ICEE2015 PC member ISCC2015 PC member EEA2016 PC member ISAI2016 PC member EME2016 PC member