Liming Zhao

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Education

- Ph.D. student in Computer and Information Science
  University of Pennsylvania. GPA = 3.90/4.00
- M.S. in Computer and Information Science, 2005
  University of Pennsylvania. GPA = 3.76/4.00
- B.S. in Computer Science and Engineering, 2003
  Zhejiang University, China. GPA = 3.8/4.0

Research Interest

- Computer animation, computer graphics and computer vision.

Awards

- SIGGRAPH/Eurographics Symposium on Computer Animation Best Paper Award, 2008
- ACM SIGACCESS Best Technical Paper Award, 2007
- Chu Ke-Chen Scholarship, Zhejiang University, China, 2003 (Highest honor in Zhejiang University)
- Outstanding Undergraduate Thesis Award. Zhejiang University, China, 2003
- First Prize, Math Contest in Modeling, China. 2002

Research Experience

- Graduate research fellow at center for Human Modeling and Simulation. Exploring techniques for modeling realistic human motion and measuring the quality of synthesized motions.
- The Well-Connected Motion Graphs. A novel approach to build motion graphs with good connectivity, quick responsiveness and smooth transitions.
- Research with soVoz Inc. Designed and developed Virtual Locomotion Controller, an immersive user interface/game controller and a hardware platform for virtual training and simulation.
- Untethered Motion Capture Evaluation for Flight line Maintenance. Explored and evaluated the utility of a set of novel motion capture technologies.
- NSF project: American Sign Language Natural Language Generation and Machine Translation. Design and implemented the American Sign Language visualization through motion planning.
- Research with Lockheed Martin Corporation in human modeling test bed. Developed a novel technique to generate real-time collision-free reach planning.
- Designed and implemented several general purpose computation tools on GPU.
- Research in computer vision. Explored techniques for image segmentation using Normalized Cut.
- Real-Time Realistic-Looking 3D Facial Expression Animation, a program of national science foundation for distinguished young scholars in China.

Technical Skills

- Operating system: Windows, Unix, Linux.
- Programming language: C, C++, Java, OpenGL, CG, Matlab and Assembly.
- Software development platform: Maya, Gamebryo and ProScena.

Work Experience

- Oct. 2006 — Sept. 2007 soVoz Inc. Princeton, NJ.
  Lead Researcher in the R&D group
  Designed and developed Virtual Locomotion Controller, an immersive user interface/game controller and a hardware platform for virtual training and simulation.
- May 2006 — Aug. 2006 soVoz Inc. Princeton, NJ.
  Research Intern
  Developed an animation/IK system for real-time character control.
- July 2002 — Sept. 2002 ArcSoft-ZDQ Software Co. Ltd. Hangzhou, China
  Software Engineer / Internship
  Developed a home video editor.

Publications

- Liming Zhao and Alla Safonova. "Achieving Good Connectivity in Motion Graphs." ACM SIGGRAPH/Eurographics Symposium on Computer Animation, Dublin, Ireland, 2008. ***Conference Award: Best Paper Award.***
- Matt Huenerfauth, Liming Zhao, Erdan Gu and Jan Allbeck. "Evaluation of American Sign Language Generation by Native ASL Signers." ACM Transactions on Accessible Computing, 2008.
- Matt Huenerfauth, Liming Zhao, Erdan Gu and Jan Allbeck. "Evaluating American Sign Language Generation through the Participation of Native ASL Signers." Ninth International ACM SIGACCESS Conference on Computers and Accessibility, Tempe, Arizona, ASSETS-2007. ***Conference Award: Best Technical Paper Award***.
- Matt Huenerfauth, Liming Zhao, Erdan Gu and Jan Allbeck. "Design and Evaluation of an American Sign Language Generator." 45th Annual Meeting of the Association for Computational Linguistics. Workshop on Embodied Language Processing. Prague, Czech Republic. 2007.
- Liming Zhao, Ying Liu, Norman Badler. "Applying Empirical Data on Upper Torso Movement to Real-time Collision-free Reach Tasks." Proceedings of SAE International Digital Human Modeling for Design and Engineering, Iowa City, IA, 2005.

Professional Service Acitivities

- Reviewer for:
  ACM Transactions on Graphics Journal (2007, 2008)
  Graphical Models Journal (2006, 2007)
  Presence: Journal of Teleoperations and Virtual Environments (2006)
  ACM SIGGRAPH / Eurographics Symposium on Computer Animation (2005)
  Symposium on Interactive 3D Graphics (2004)

Additional Experience

- Teaching assistant for Computer Animation (Fall 2005, Fall 2006, Fall 2007). Designed and graded course projects, and gave lectures on facial animation.
- Teaching assistant for Introduction to Computer Science with Java (Fall 2004 and Spring 2005). Designed and taught lab sessions and review sessions. Strong English proficiency.

References

- Dr. Norman Badler <badler@seas.upenn.edu>
  Professor, Computer & Information Science Dept. University of Pennsylvania.
- Dr. Alla Safonova <alla@cis.upenn.edu>
  Assistant Professor, Computer & Information Science Dept. University of Pennsylvania.