

Feng Tang

CONTACT INFORMATION

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EDUCATION

University of California, Santa Cruz, California, USA **09/2004 - Present**
• Ph.D student, Computer Engineering, with Prof. Hai Tao

Zhejiang University, Hangzhou, Zhejiang, China **09/1997 - 04/2003**
• M.E., Computer Science, State Key Lab. of CAD&CG, with Prof. Qunsheng Peng
• B.E., Computer Science & Engineering.

RESEARCH EXPERIENCE

Research Assistant, Visual Computing Lab., UC Santa Cruz **09/2004 - Present**
• Efficient image representation using non-orthogonal binary subspace with applications in fast template matching, fast image reconstruction, fast image recognition, etc.

- Object tracking using online semi-supervised learning.
- Object tracking using dynamic feature graph.

Intern, Imaging Technologies Department, HP Labs. Palo Alto **06/2007 - 12/2007**
• Optical flow estimation (library in Matlab and C) and global dominant motion extraction.
• Brightness invariant feature that is proved to be invariant to monotonic brightness changes.

Intern, Mobile&Media Systems Lab., HP Labs. Palo Alto **06/2006 - 09/2006**
• The project augments stereo-based models of tracked objects with sparse local appearance features for multiple object tracking.

Research Assistant, State Key Lab. of CAD&CG, China **09/2001 - 03/2004**
• 3D virtual brush based painting system which includes a realistic 3D geometric modeling module, a real-time rendering and deformation module and a pigment model.
• Object removal in photographs that can automatically remove undesired objects in photographs using texture synthesis method.

SELECTED PUBLICATIONS (FROM 16 PAPERS)

- **Feng Tang**, Ryan Crabb and Hai Tao, "Representing Images Using Non-orthogonal Haar-like Bases," *IEEE Trans. Pattern Analysis and Machine Intelligence (PAMI)* vol. 29, no. 12, pp. 2120-2134, December, 2007
- **Feng Tang**, Shanne Brennan, Qi Zhao and Hai Tao, "Co-Tracking Using Semi-Supervised Support Vector Machines," *Proc. of ICCV*, pp. 1-8, 2007
- **Feng Tang** and Hai Tao, "Object Tracking with Dynamic Feature Graph," *IEEE VS-PETS*, in conjunction with ICCV, pp. 25-32, 2005
- **Feng Tang**, Yiting Ying, Jin Wang, and Qunsheng Peng, "A Novel Texture Synthesis Based Algorithm for Object Removal in Photographs," *the 9th Asian Computing Science Conference*, Chiang Mai, LNCS 3321, pp. 248-258, 2004
- Songhua Xu, Francis Lau, **Feng Tang** and Yunhe Pan, "Advanced Design for a Realistic Virtual Brush," *Proc. of Eurographics 2003*, also *Comput. Graph. Forum*, 22(3), pp. 533-542, 2003

SELECTED HONORS

- Chinese Government Award for Outstanding Self-financed Students Abroad **2007**
◊ This award is established to encourage research excellence and to recognize the achievement among Chinese students abroad. It is granted across all fields of study and all countries in the world and was presented to only 72 Chinese students in the United States in 2007.
- The 8th Chinese National "Challenge Cup" College Student Research Competition **2003**
◊ **Outstanding Prize.** One of the two outstanding prizes selected from over 50,000 computer science projects competing in the competition throughout Great China.

ACTIVITIES

Reviewer for *Machine Vision and Applications*, *Pattern Recognition Letters*, *Neurocomputing*, *Neural Processing Letters*, *International Journal of Pattern Recognition and Artificial Intelligence*, *IEEE Trans. Systems, Man, and Cybernetics*, *IEEE Trans. Circuits and Systems for Video Technology*.

SKILLS

Proficient with C/C++/Matlab. Familiar with OpenCV, OpenGL, etc.