Tingting Jiang

LEAR team
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Education

- 2001 - 2007: Ph.D. in Computer Science, Duke University, Durham, NC, USA.

  Advisor: Professor Carlo Tomasi

- 1996 - 2001: B.E. in Computer Science, the Special Class for the Gifted Young, University of Science and Technology of China , Hefei, Anhui, P.R. China.

  Advisor: Professor Naijie Gu

Research Interests

- Computer Vision, especially in tracking and shape theory
- Machine Learning and Artificial Intelligence

Research Experience

- 2007 - Present, Postdoc in LEAR, INRIA Rhone-Alpes, Grenoble, France.
  Advisors: Dr. Cordelia Schmid and Dr. Frederic Jurie
  - Learn shape prior models for objects
  - Apply the learned shape models to object recognition and classification
- 2003 - 2007, Research Assistant, Department of Computer Science, Duke University.
  Advisor: Dr. Carlo Tomasi
  - Designed the "Level-Set Curve Particles" to represent a probability distribution in the state space of all possible curves to track a dynamic boundary efficiently
  - Developed an efficient tracking algorithm for dynamic boundaries based on the "Level-Set Curve Particles"
  - Applied the tracking algorithm to track the boundary of a colon in tomographic imagery and the sea surface temperature (SST) contours by global SST data
  - Designed and analyzed algorithms that can dispatch observers to monitor the dynamic boundary efficiently
  - Learning shape prior to improve tracking boundaries
- 2002 - 2003, Research Assistant, Department of Computer Science, Duke University.
  Advisor: Dr. John Reif

  - Developed efficient methods for stochastic simulations of biomolecule motions with the aid of probabilistic roadmap methods (PRM)
  - Co-developed the "bridge test" planner which is a hybrid sampling strategy in the PRM framework for path planning of robots through narrow passages

Teaching Experience

- Fall 2004 : Teaching Assistant for undergraduate course " Introduction to Numerical Methods and Analysis", Department of Computer Science, Duke University.
- Fall 2002 : Teaching Assistant for graduate course "The Design and Analysis of Algorithms", Department of Computer Science, Duke University.
- Spring 2002 : Teaching Assistant for undergraduate course "Program Design and Analysis", Department of Computer Science, Duke University.

Honors and Awards

- 2007: Outstanding Department Service Award, Dept. of Computer Science, Duke University.
- 2001: Graduate Fellowship, Duke University.
- 1996 - 2000: Outstanding Student Scholarships for five consecutive years, University of Science and Technology of China.

Publications

- Tingting Jiang, Frederic Jurie and Cordelia Schmid, *Learning Shape Prior Models for Object Matching*, Accepted by the IEEE Computer Society Conference on Computer Vision and Pattern Recognition (CVPR'09), Miami, Florida, USA, June 2009.
- Tingting Jiang and Carlo Tomasi, *Robust Shape Normalization Based on Implicit Representations*, the 19th International Conference on Pattern Recognition (ICPR'08), Tampa, Florida, USA, December 2008.
- Ph.D. Thesis, *Tracking Dynamic Boundaries by Evolving Curves*, 2007.
- Tingting Jiang, Carlo Tomasi and Scott C. Schmidler, *How to Dispatch Observers to Track an Evolving Boundary*, the First ACM/IEEE International Conference on Distributed Smart Cameras (ICDSC'07), Vienna, Austria, Sep. 25-28, 2007.
- Tingting Jiang and Carlo Tomasi, *Finite-Element Level-Set Curve Particles*, the International Conference on Computer Vision (ICCV'07) Workshop on Non-rigid Registration and Tracking through Learning, October 2007.
- Tingting Jiang and Carlo Tomasi, *Level-Set Curve Particles*, the 9th European Conference on Computer Vision (ECCV'06), Graz, Austria, Vol. 3953 of LNCS, Springer, pp. 633-644, May 2006.Acceptance Raito: 40/900.
- Zheng Sun, David Hsu, Tingting Jiang, Hanna Kurniawati and John Reif, *Narrow Passage Sampling for Probabilistic Roadmap Planning*, IEEE Transactions on Robotics, Vol. 21, No. 6, December 2005, pp. 1105-1115.

- David Hsu, Tingting Jiang, John H. Reif, and Zheng Sun, *The Bridge Test for Sampling Narrow Passages with Probabilistic Roadmap Planners*, 2003 IEEE International Conference on Robotics and Automation (ICRA'03), Taipei, Taiwan, May 12-17, 2003.

External Presentations

- 10/03/2007:"How to Dispatch Observers to Track an Evolving Boundary", LEAR, INRIA, Grenoble, France.
- 09/27/2007: "How to Dispatch Observers to Track an Evolving Boundary", ICDSC'07, Vienna, Austria.
- 11/07/2006: "Level-Set Curve Particles," Department of Computer Science, UNC, Chapel Hill.
- 05/10/2006: "Level-Set Curve Particles," ECCV'06, Graz, Austria.

Computer Skills

- Programming Languages: C/C++, Matlab, Pascal, SQL, HTML, JAVA
- Platforms: Unix(Linux, Solaris), Windows NT/2000/XP
- Other: LaTeX, MS-Office

Extracurricular Activities

- 2006 - 2007 : Program Committee Member of Women in Science and Engineering (WiSE), Duke University.
- 2005 - 2006 : Graduate Student Liaison, Department of Computer Science, Duke University.
- 2004 - 2006 : Google Pizza Ambassador, Duke University.
- 2002 - 2003 : Secretary-general and Chair of women of Duke Chinese Students and Scholars Association (DCSSA).

Professional Service

Reviewer for : Computer Vision and Image Understanding, CVPR, ECCV

Personal

Chinese citizenship.

Last updated: February 23, 2009