

Annie Hui

CONTACT INFORMATION

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Citizenship: Singaporean
US Visa: F1
US Work Visa Eligibility: H1B and H1B1
(under US-Singapore Free Trade Agreement)

INTERESTS

Applications of Geometric Modeling; Problem Analysis and Solving; Teamworking

WORK EXPERIENCE **University of Maryland**, College Park, MD USA

Research Assistant

August, 2004 - present

- Job nature: investigate topological data structures.
Accomplishments: designed highly-compact representations for complex shapes, which support multi-resolution modeling.
- Job nature: explore topology-based shape understanding.
Accomplishments: proposed a hierarchical description of object-topology based on sound decompositions of complex shapes for web searching.

Centre for Remote Imaging, Sensing and Processing, Singapore

Associate Scientist

February 2000 - July 2001

- Job nature: explore and develop applications of satellite images.
Accomplishments: detected road network from IKONOS and SPOT satellite images; built software for automated enumeration of palm trees using the curvature primal sketch at multiple resolutions.
- Job nature: monitor forest-fire using SPOT images.

EDUCATION

University of Maryland, College Park, MD USA

Ph.D. Candidate, Computer Science (*expected graduation date: Spring 2008*)

- Dissertation Topic is “Representing and Understanding Non-Manifold Objects” with Leila De Floriani. Recipient of Ann Wylie Dissertation Fellowship for Fall 2007.

M.S. Computer Science by coursework, GPA 3.8, December 2003

National University of Singapore, Republic of Singapore

M.S., Computer Science by research, with research scholarship, November 2000

- Thesis Topic is “Mobile Robot Localization using Reference Images” with Kah-Kay Sung.

B.S., Computer Science with honors, major in Computer Vision, December 1998

COMPUTER SKILLS

- Modeling and Computational Packages: proficient in Wings3D, Tetgen and GMV; some experience with Brlcad, Blender, Medit, graphviz, matlab and numerical recipes.
- Languages: proficient in C, Latex and Unix scripting; some experience with C++, Java, Lisp, Perl.
- Operating Systems: proficient Linux user; some experience with Linux system administration; general familiarity with Windows.
- Presentation Tools: expert at Powerpoint.

LANGUAGE SKILLS

- Proficient in English, Mandarin Chinese and Cantonese Chinese; novice in Italian.

SELECTED
PUBLICATIONS

1. L. De Floriani and A. Hui. Shape Representations Based on Simplicial and Cell Complexes. In *State-of-the-art Report, Eurographics 2007*, Prague, Czech Republic, September 2007.
2. L. De Floriani and A. Hui. A scalable data structure for three-dimensional non-manifold objects. In *Symposium on Geometry Processing*, pages 72–82, Aachen, Germany, June 2003.
3. A. Hui, S. C. Liew, and L. K. Kwok. Extraction of linear features in multispectral imagery. In *Proceedings of International Symposium on Geoscience and Remote Sensing*, pages 2310–2312, volume 5, Sydney, Australia, July 2001.

SELECTED TALKS
GIVEN

- *A Decomposition-based Representation for 3D Simplicial Complexes*, 4th Eurographics Symposium on Geometry Processing, June 2006, Cagliari, Italy.
- *How to Represent Non-Manifold Objects Efficiently*, Graphics Lunch GVIL Graphics and Visual Informatics Laboratory, March 2006, University of Maryland at College Park.

SELECTED
ACTIVITIES
PARTICIPATED

- Research collaboration with DISI (Italy) and INPG (France) on applications of non-manifold modeling.
- Organizer of Chinese Student Dissertation Support Group, Maryland 2007.
- Co-organizer of Chinese Student Christian Fellowship, Maryland 2005.
- Vice chairperson of Undergraduate Science Research Programme Student Committee, Singapore 1996.

HOBBIES AND
PERSONALITY

- Indoor: Hosting dinners, cross-stitching.
- Outdoor: Hiking, swimming, traveling.
- Personality: Outgoing with non-aggressive Asian characteristics, firm with principles.
- Interpersonal skills: Excellent in cross-cultural communication.