

Qiu Wu

CONTACT INFORMATION

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EDUCATION

PhD student, January 2000—August 2007(expected)
Department of Electrical and Computer Engineering
The University of Texas at Austin

- Dissertation Topic: “Computerized Image Analysis of Dynamic Contrast-Enhanced Breast MRI”
- Advisors: Donald S. Fussell, Ph.D. and Mia K. Markey, Ph.D.

Master student, January 1999—December 1999
Biomedical Engineering Graduate Program
The University of Texas at Austin

Master of Engineering, May 1998
Electrical Engineering (Signal Processing track)
Southeast University, China

Bachelor of Science, June 1995
Computer Science
Hefei University of Technology, China

TRAINEESHIP

Graduate Student Trainee, June 2006—May 2007

- Mentor: Gary J. Whitman, M.D.

Department of Diagnostic Radiology
M.D. Anderson Cancer Center, Houston, TX

VISITING EXPERIENCE

Visiting Scholar, August 1998—November 1998
Department of Electrical Engineering
The University of Sydney, Australia

WORK EXPERIENCE

Student Intern, May 2004—August 2004
Department of Imaging
Computer-Aided Diagnosis and Therapy Solutions Group
Siemens Medical Solutions USA, Malvern, PA

Student Intern, June 2000—August 2000
Department of Imaging and Visualization
Siemens Corporate Research, Princeton, NJ

AWARD/HONOR

Boeing Graduate Mentor Scholarship, Spring 2007, Women in Engineering Program,
College of Engineering, The University of Texas at Austin

New Entrant Stipend Award, 2006, International Society of Magnetic Resonance in Medicine

Short Term Visitor Grant, May 03 – 05, 2006, Mathematical Sciences Research Institute (MSRI),
Berkeley, CA, for workshop “Mathematical Systems Biology of Cancer”

Short Term Visitor Grant, March 14 – 17, 2006, Institute for Pure and Applied Mathematics (IPAM), UCLA , for workshop “Cells and Materials: At the Interface between Mathematics, Biology and Engineering”

President (2003–2004), Graduate Engineering Council, The University of Texas at Austin

Outstanding Graduate Entrant Award, Fall 1995, Department of Electrical Engineering, Southeast University, China

Academic Excellence Award, Spring 1992—Fall 1994, Hefei University of Technology, China

RA/TA/GRADER
EXPERIENCE

Research Assistant

- Department of Biomedical Engineering, March 2005–present
- Institute for Computational Engineering and Science, January 2000–December 2003

Teaching Assistant

- BME348 “System Analysis for Biomedical Engineering”, Spring’06
- BME303 “Introduction to Computing Systems for Biomedical Engineers”, Fall’05

Grader

- ECE302 “Introduction to Electrical and Computer Engineering”, Fall’99
- ECE331 “Electrical Circuits and Electronics”, Fall’99
- ECE360 “Introduction to Automatic Control”, Fall’99

UNDERGRADUATE
ADVISEE

- Mary Gloria, Junior, Biomedical Engineering, Spring 2007

PUBLICATIONS

Book Chapter

- **Q. Wu** and M. Markey. “Computer-Aided Diagnosis for Breast Cancer on MR Imaging”, book chapter in edited book *Recent Advances in Breast Imaging, Mammography and Computer-Aided Diagnosis*, pp.743-766, SPIE Press, 2006

Journal Articles

- W. Jiang, M. Baker, **Q. Wu**, C. Bajaj, and W. Chiu. “Applications of Bilateral Denoising Filter in Biological Electron Microscopy”, *Journal of Structural Biology*, Volume 144, Issues 1-2, pp.114-122, October 2003
- B. Wang, L. Yang, **Q. Wu**, and Z. He. “On the Classification Capability of Feedforward Network Containing Quadratic Sigmoidal Neurons”, *Acta Electronica Sinica (in Chinese)*, Volume 26, Issue 1, pp.118-121, 1998
- L. Yang, **Q. Wu**, Z. He, and H. Lu. “Chaotic Masking for Secure Communication”, *Journal of Data Acquisition and Processing (in Chinese)*, Volume 13, Issue 1, pp.1-4, 1998
- Z. Lu, L. Yang, **Q. Wu**, and Z. He. “A New Approach for improving Generalization Ability of Multilayer Feedforward Networks”, *Journal of Circuits and Systems (in Chinese)*, Volume 2, Issue 4, pp.7-12, 1997

Conference Papers

- **Q. Wu**, G. Whitman, D. Fussell, and M. Markey. “Registration of DCE MR Images for Computer-aided Diagnosis of Breast Cancer ”, IEEE Asilomar Conference on Signals, Systems and Computers, 2006
- **Q. Wu**, M. Salganicoff, A. Krishnan, D. Fussell, and M. Markey. “Interactive Lesion Segmentation of Dynamic Contrast Enhanced Breast MRI using a Markov Model ”, Proceedings of SPIE (vol. 6144) Medical Imaging: Image Processing, pp.1487-1494, 2006

Technical Reports

- C. Bajaj, **Q. Wu**, and G. Xu. “Level set based Volumetric Anisotropic Diffusion for 3D Image Filtering” *ICES Technical Report # 301*, The University of Texas at Austin, 2003

Unpublished Manuscript

- **Q. Wu** and C. Bajaj. “B-spline Representation for Volume Reconstruction”, 2003

TALK/ORAL PRESENTATION

- “Lesion Segmentation of Dynamic Contrast Enhanced Breast MRI Using Mean Shift Method”, Houston 24th Annual Conference on Biomedical Engineering Research, February 8, 2007.

SERVICE

Professional Service

- Reviewer for IEEE Signal Processing Letter, 2006–present
- Reviewer for 15th European Signal Processing Conference (EUSIPCO 2007)
- Member of Technical Program Committee of 2006 IEEE Region 5 Annual Conference
- Student Volunteer for SIGGRAPH'02

University/Community Service

- Member of Constitution and Bylaws Committee (2004-2005), Graduate Student Assembly
- Student Representative of Engineering Teaching Award Committee (2003-2004)
- Judge, Celanese Graduate Research Presentation 2003, Department of Chemical Engineering
- President (2003–2004), Graduate Engineering Council, UT-Austin
- Administrative Director (2002–2003), Graduate Engineering Council, UT-Austin
- Member of Habitat for Humanity Texas Campus Chapter (1999-2000)

MEMBERSHIPS

- Academy of Molecular Imaging (AMI)
- Institute of Electrical and Electronics Engineers (IEEE)
- International Society for Optical Engineering (SPIE)
- International Society of Magnetic Resonance in Medicine (ISMRM)
- Society for Industrial and Applied Mathematics (SIAM) (activity group Imaging Science)