

# Xiaochu Wang

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**Objective** A full-time position in chemical engineering

**Education** **PhD, Chemical Engineering, August 2007**

The University of Texas at Austin

Overall GPA: 3.94/ 4.00

Major GPA: 3.92/ 4.00

**Master of Science, Control Science and Engineering, May 2003**

Zhejiang University, China

Overall GPA: 3.75/ 4.00

Major GPA: 3.84/ 4.00

**Bachelor of Engineering, Control Science and Engineering, May 2000**

Zhejiang University, China

Overall GPA: 3.77/ 4.00

Major GPA: 3.88/ 4.00

## Related Courses

Fluid Flow and Heat Transfer, Molecular Thermodynamics, Polymer Science, Statistical Mechanics, Surface Phenomena, Material Seminar, Applied Functional Analysis, Linear Systems, System Identification and Filtering, Artificial Intelligence, Pattern Recognition and Neural Network, Intelligent Control

## Experience

09/2003 – Present

**Graduate Research Assistant, The University of Texas at Austin**

Explored the effect of CO<sub>2</sub> on the polymer interfaces, explained why anomalous swelling happens and discussed the feasibility of using CO<sub>2</sub> in polymer welding.

01/2005 – 05/2005

**Teaching Assistant, The University of Texas at Austin**

Led undergraduate students to conduct the experiments, including fluid flow measurements, process control, etc. Prepared quizzes about the technical background, and evaluated students' performance on quizzes and written reports.

09/2000 – 05/2003

**Research assistant, Institute of Advanced Process Control, Zhejiang University**

Designed algorithms of fault detection based on statistical methods

7/1999 – 8/1999

**Summer Internship, Sinopec Zhenhai Refining & Chemical Co. Ltd.**

Studied the refining process and the relevant computer-aided control system

7/1998 – 7/1998

**Summer Internship, Baoshan Steelworks, Shanghai**

Studied the steelmaking process and the relevant computer-aided control system

## Academic Experience

**Supercritical Carbon Dioxide Adsorption**

Proved that the adsorption is highly related to the compressibility of the fluid, and explained why anomalous swelling happens.

## Skills

Experienced programming in Molecular Dynamics and Monte Carlo Simulation

Experienced in implementing algorithms with C/C++, FORTRAN, Matlab, Mathematica

Proficient with Microsoft Office, UNIX operating system

## Accomplishments

Recipient, Professional Development Award (March, 2006)

Member, American Institute of Chemical Engineers (AIChE)

Member, American Physical Society (APS)

Webmaster, Chinese Student & Scholar Association of the University of Texas at Austin (June 2004 – April 2006)

Webmaster, International Student Connection at UT Austin (September 2004 – January 2005)

Recipient, Huawei Scholarship (2001)

Recipient, Zhejiang University Scholarship, First Prize (2001)

Recipient, Excellent graduate Award (2000)

Recipient, Honor Certificate for Mixed Class (An elite program class) (2000)  
Recipient, Meritorious Paper Award in ICM (Interdisciplinary Contest in Modeling) (2000)  
Recipient, Zhejiang University Scholarship, First Prize (1999)  
Recipient, Zhejiang University Scholarship, Second Prize (1997)  
Recipient, Matriculation Scholarship (1996)

## **Publications**

Xiaochu Wang and I. C. Sanchez "Anomalous Sorption of Supercritical Fluid on Polymer Thin Films" To appear  
Y. Huang; X. Wang and D.R. Paul "Physical aging of thin glassy polymer films: Free volume interpretation", Journal of Membrane Science 2006, 277 (1-2), 219-229  
Yuan Li; Xiaochu Wang; Isaac C. Sanchez; Keith P. Johnston and Peter F. Green "Supercritical Fluid Induced Phase Segregation in Asymmetric Block Copolymer Films" Submitted  
K. Wu; X. Wang; E. K. Kim; C. G. Willson and J. G. Ekerdt "Experimental and Theoretical Investigation on Surfactant Segregation in Imprint Lithography" Submitted  
Xiao-Yan Wang; Frank T. Willmore; Roy D. Raharjo; Xiaochu Wang; I. C. Sanchez and B. D. Freeman "Physical aging in poly[1-(trimethylsilyl)-1-propyne] membranes: Effects on free volume and permeability" To appear  
Wang, Xiaochu; Rong, Gang "Improved PCA with application to Fault Detection", Journal of Southern Yangtze University (Natural Science Edition), 2(3), 221-225, 2003

Employability Status: **Student Visa**