

Pan Yu

CONTACT INFORMATION	COM1 01-16, Embedded System Lab School of Computing National University of Singapore Republic of Singapore, 117590	<i>Office:</i> (065) 6516-6836 (Office hours) <i>Hand Phone:</i> (065) 9431-9463 (Off time) <i>E-mail:</i> panyu@comp.nus.edu.sg <i>WWW:</i> www.comp.nus.edu.sg/~panyu
Objective	R&D or technical position in leading industrial company.	
EDUCATION	National University of Singapore , Republic of Singapore <i>Computer Science Department, School of Computing</i> Ph.D. Candidate, Computer Science, July 2002 (expected graduation date: Jan. 2008) <ul style="list-style-type: none">• Dissertation Topic: "Design automation of instruction-set extensible processors"• Advisor: Tulika Mitra Fudan University , Shanghai, Peoples Republic of China <i>Department of Computer Science and Engineering</i> B.S., Computer Science, June, 2002	
PARTICIPATED PROJECTS	ISE support for Trimaran compiler infrastructure , 2007 An open-source component provides Trimaran the capability of identifying and utilizing application specific custom instructions. It includes the main algorithms I have developed during my Ph.D. The main motive of this component is to provide clean data structures and interfaces for custom instruction algorithms, so that researchers can compare and release their algorithms upon a common platform. This work also enables further research on custom instruction scheduling problems. Multimedia Contents CD for Fudan Graduates 2002 (ISBN 7-900606-93-9), 2002 This project created and integrated original multimedia contents about campus life of batch 2002, Fudan University. I was the main artist and programmer. Programming languages/tools used include html, java script, SQL, Macromedia Director, Flash/ActionScript, Adobe Photoshop. Networked Information Management System for adult education department of Fudan University , 2000 This project implemented a networked database system conforming to 3NF with multi-user access control. We helped customer convert from the old DOS based non-networked system to a networked system on Windows with more friendly UI. I was the leader of the project involving 3 students, in charge of defining the database, component interface, user interface and programming. Borland Delphi is the main development environment.	
SKILLS ON COMPUTING	<ul style="list-style-type: none">• Programming Languages: Mainly C/C++ and Shell script. Others, java, ASP, SQL, html, x86 assembly, Pascal, Visual Basic.• OS environment: Linux, Windows.• Tools: GCC and various open-source tools, Simple Scalar instruction simulator, Trimaran compilation infrastructure.	
LANGUAGES	Fluent speaking and proficient technical writing in English; native in Mandarin.	
PROFESSIONAL MEMBERSHIP	Student Member of ACM and IEEE Member of ACM SIGDA (Special Interest Group on Design Automation)	

PUBLICATIONS

Pan Yu and Tulika Mitra. Characterization of Embedded Applications for Instruction-Set Extensible Processors. 41st ACM/IEEE Design Automation Conference (DAC), San Diego, USA, June 2004.

Pan Yu and Tulika Mitra. Scalable Custom Instructions Identification for Instruction-Set Extensible Processors. ACM/IEEE International Conference on Compilers, Architecture, and Synthesis for Embedded Systems (CASES), Washington DC, USA, September 2004. **Best paper award nomination.**

Satisfying Real-Time Constraints with Custom Instructions. Pan Yu, Tulika Mitra. IEEE/ACM/IFIP International Conference on Hardware - Software Codesign and System Synthesis (CODES+ISSS), September 2005.

Disjoint Pattern Enumeration for Custom Instructions Identification. Pan Yu, Tulika Mitra. IEEE International conference on field programmable logic and applications (FPL), August, 2007. **Best paper award nomination.**

Efficient Custom Instruction Identification with Exact Enumeration. Pan Yu, Tulika Mitra. Technical Report TRB5/07, National University of Singapore, 2007

HONORS AND AWARDS

Best paper award nomination, IEEE FPL, 2007

SUN/SoC/iDA Ph.D. Fellowship, 12 months, 2005

Best paper award nomination, ACM/IEEE CASES, 2004

Dean's Graduate Award, 2003/2004

Excellent Graduate of Fudan University, Apr. 2002

Second and third class People's Scholarships of Fudan University, 1998~2002

Third place, Physics Contest of high school students, Yun Nan Province, 1997

GRADUATE LEVEL COURSES

- Distributed Systems
- Parallel Computer Systems
- Design of Optimized Compilers
- Advanced Processor Architecture
- Combinatorial Methods in Bioinformatics
- Software Project Management

EXTRA CURRICULAR

- **Singing:** I enjoy singing and vocal related activities (languages, music and making noises) very much. Being the member of Shanghai University students chorus for 3 years, I participated in many contests, events and premier public performances (campus, Shanghai grand theater, Shanghai concert hall), and made lots of friends outside the school.
- **Design and Photography:** I also enjoy creating visually pleasing contents. I was the main art designer of our school journal back in the University, and had designed many posters and banners in the student union. I take a lot of photos in graduate school when I travel. You can find some of my photos on <http://wildwildcat.blogspot.com/>.
- **Teaching Chinese:** I started teaching my lab mate Chinese a few months ago. Learning Chinese is a big challenge, which makes teaching one as well. As readings in the pinyin form is very limited, practicing a lot with my friend turns out to be very important. During the process, I conclude myself a very patient teacher.