

Ping Zhou

Ph.D. student major in Computer Engineering
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Education

- **University of Pittsburgh** Pittsburgh, PA
Ph.D., Computer Engineering Jan. 2008 - Present
 - Advisor: Jun Yang
 - Expected graduation: Dec. 2011
 - GPA (up to Spring 2011): 4.0/4.0
- **Shanghai Jiao Tong University** Shanghai, China
M.S., Computer Science Sep. 2001 - Mar. 2004
 - Advisor: Jinyuan You
 - GPA: 2.57/3.0
- **Shanghai Jiao Tong University** Shanghai, China
B.S., Computer Science Sep. 1997 - Jul. 2001
 - GPA: 3.37/4.0

Professional

- **Videon Central, Inc.** Advanced Technology Group
Software Engineer Intern May. 2010 - Aug. 2010
 - Work on Intel CE4100-based Blu-ray player for Google TV
 - Fixed many critical bugs and helped making Golden Master release possible
 - Contribution was highly appreciated by Videon, Sony and Intel
- **Intel (Shanghai)** Digital Home Group
Technical Leader, Senior Software Engineer Jan. 2007 - Nov. 2007
 - WWID: 11035772
 - Architecture and design of Streaming and Media Driver (SMD)
 - Transport Stream De-multiplexer (TSD) firmware, driver and API
 - Assist manager on software process and change controls
- **Intel (Shanghai)** Digital Home Group
Software Engineer Jan. 2005 - Dec. 2006
 - New hardware platform power-on
 - Bootloader, OS kernel and device drivers
 - Platform Development Kit (PDK)
- **Intel (Shanghai)** Broadband Media Operation
Software Engineer Oct. 2003 - Dec. 2004
 - New hardware platform power-on
 - Bootloader, OS kernel and device drivers

- Packaging and build system
- Version control and change administration

- **Intel (Shanghai)**

APAC Wireless Market Development

Part-Time

Jun. 2002 - Aug. 2003

- Software/Hardware testing and technical review
- Training and technical support for ISVs
- Demo and benchmark systems

Projects

- Videon Central: Intel CE4100-based Blu-ray player for Google TV
- Intel: IP/DVB Set-Top-Box based on Intel CE2xxx Media Processor
- Intel: IP/DVB Set-Top-Box based on Intel embedded IA platform
- Intel: Toshiba HD-DVD based on Intel embedded IA platform
- Intel: Digital Media Adapter using Intel Xscale processor and ESS media processor
- Intel: Digital Media Gateway using Intel Xscale processor and SigmaDesign media processor
- Intel: Remote Gaming project using Intel Xscale processor and SigmaDesign media processor
- Course Project: VLSI implementation of cache coherence protocol
- Course Project: Out-of-order core simulator (Tomasulo algorithm)
- Course Project: Compiler design (lexical analysis, syntax analysis, semantic tree)

Research

- **Ping Zhou**, Bo Zhao, Youtao Zhang, Jun Yang, Yiran Chen “*MRAC: A Memristor-based Reconfigurable Framework for Adaptive Cache Replacement*,” to appear as short paper, The 20th International Conference on Parallel Architectures and Compilation Techniques (PACT), Oct. 2011.
- **Ping Zhou**, Yu Du, Youtao Zhang, Jun Yang, “*Fine-Grained QoS Scheduling for DRAM/PCM Hybrid Memory Systems*,” 2011 Non-Volatile Memories Workshop (Poster), March 2011.
- **Ping Zhou**, Yu Du, Youtao Zhang, Jun Yang, “*Fine-Grained QoS Scheduling for PCM-based Main Memory Systems*,” The 24th IEEE International Parallel & Distributed Processing Symposium (IPDPS-2010), April 2010.
- Benjamin Lee, **Ping Zhou**, Jun Yang, Youtao Zhang, Bo Zhao, Engin Ipek, Onur Mutlu, Doug Burger, “*Phase Change Technology and the Future of Main Memory*,” IEEE Micro, vol. 30, no. 1, pp. 143-143, Jan./Feb. 2010.
- **Ping Zhou**, Bo Zhao, Jun Yang, Youtao Zhang, “*Energy Reduction for STT-RAM Using Early Write Termination*,” IEEE/ACM 2009 International Conference on Computer-Aided Design (ICCAD-2009), pp. 264-268, November, 2009.
- **Ping Zhou**, Bo Zhao, Jun Yang, Youtao Zhang, “*A Durable and Energy Efficient Main Memory Using Phase Change Memory Technology*,” The 36th International Symposium on Computer Architecture (ISCA-2009), pp. 14-23, June, 2009.
- **Ping Zhou**, Bo Zhao, Yu Du, Yi Xu, Youtao Zhang, Jun Yang, Li Zhao, “*Frequent Value Compression in Packet-based NoC Architectures*,” The 14th Asia and South Pacific Design Automation Conference (ASP-DAC 2009), pp. 13-18, January 2009.

Awards & Honors

University of Pittsburgh: Outstanding Teaching Assistance	2010
Intel: Ranked Outstanding in every year's performance review	2005, 2006, 2007
Intel: Division Recognition Award	2004, 2006, 2007
Intel: Spontaneous Recognition Award	2006/12, 2007/5, 2007/7
Intel: Olo River Production Launch Award	2007
Intel: BMO Project Completion Award	2005
Shanghai Jiao Tong University: Exceptional Student	2000
Shanghai Jiao Tong University: Outstanding Student	1998
Shanghai Jiao Tong University: Scholarship winner	1997, 1998, 1999, 2000

Skills

- Expert in embedded system
- Expert in new hardware power-on and low-level development (ARM and x86)
- Proficient with C/C++, Bash and assembly programming
- Experienced with Java, Python, HTML, \LaTeX
- Experienced with OS kernel design and device drivers
- Experienced with ARM and x86 architecture
- Experienced with various simulators (Simics, GEMS, Pin)
- Experienced with Android development
- Solid understanding in computer architecture
- Solid understanding in memory technologies (SRAM, DRAM, Flash, PCM, MRAM)
- Knowledge in wireless technologies (IEEE 802.11)
- Knowledge in streaming and multimedia technology
- Knowledge in circuit and VLSI design

Personality

- Self-motivated
- Smart and quick-learning
- Innovative
- Good team spirit
- Responsible