Wei Wang
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Jianye District, Nanjing, Jiangsu, China

Career Interests

Computer Architecture, Operating Systems and Virtualization Technology, Embedded System Design, Heterogeneous Computing, Hardware/Software Co-design

Education

- *MASc Electrical and Computer Engineering, (2011-2013)*
  University of Ottawa
  Research Group Affiliations: Computer Architecture Research Group
  Thesis: FPGA-based Hardware Accelerators in Cloud Computing
- *BASc Electronics and Information Engineering, (2007-2011)*
  Changzhou Institute of Technology
  Project: A system design using an MSC-51 microcontroller and NRF905 wireless transceiver

Computer Related Skills

General	• Proficient in C and embedded programming • Fluent in Assembly Languages • Experience with OO in C++ and Java • Experience with UML modeling • Experience with 2D graphics programming • Experience with an S3C2440 development board running Linux Kernel • Knowledge of computer networking
Computer Architecture	• Sound knowledge of the x86 architecture • Sound knowledge of OS concepts pertaining to virtualization technology • Sound knowledge of Linux Kernel (e.g. kernel synchronization, memory management, interrupts, device driver model) • Sound knowledge of the Xen hypervisor • Sound knowledge of memory system (e.g. cache coherence protocols, memory scheduling) • Functional knowledge of CPU microarchitectural concepts • Knowledge of the ARM architecture • Knowledge of RTOS • Knowledge of MPSoC • Knowledge of the KVM hypervisor • Knowledge of CUDA programming for NVIDIA GPUs • Hands-on experience with Xen-based paravirtualization development on x86 servers • Hands-on experience with Scatter-Gather DMA, PCI/PCIe, SPI, RS232

Hardware Design	• Experience with both Xilinx and Altera FPGA targets
	• Hands-on experience with Xilinx Virtex-5, Virtex-6 and Altera Cyclone II FPGAs
	• Proficient with VerilogHDL and knowledgeable with VHDL
	• Familiar with Quartus II, ISE Design Suite, Modelsim, Protel, Proteus

Awards and Achievements

- 2013 Patenting Bonus, Intellectual Ventures, United States.
- 2013 Research Assistant Scholarship (Jan.-Oct.), NSERC, Canada.
- 2011 Scholarship for Outstanding Graduates, Changzhou Institute of Technology, China.
- 2011 Outstanding Undergraduate Diploma Thesis, Changzhou Institute of Technology, China.
- 2011~2007（Yearly）Study Achievement Scholarship, Changzhou Institute of Technology, China.
- 2010 Student Excellence Scholarship, Changzhou Institute of Technology, China.
- 2009 Sports Achievement Scholarship, Changzhou Institute of Technology, China.

Publications

Wei Wang, Miodrag Bolic, Jonathan Parri, "pvFPGA: Accessing an FPGA-based Hardware Accelerator in a Paravirtualized Environment", International Conference on Hardware/Software Codesign and System Synthesis (CODES+ISSS'13), Montreal, Canada, Oct. 2013.

Patents

Wei Wang, Miodrag Bolic, Jonathan Parri. Virtualization of Hardware Accelerator. PCT International Application: PCT/CA2013/050725. International Filing Date: Sep., 2013, pending.

Attended Workshops / Conferences

- Designing with Freescale Seminar Series, Ottawa, Ontario, Canada, Oct. 30, 2013.
- Embedded Systems Week (ESWEEK), Montreal, Quebec, Canada, Sep. 29-Oct. 4, 2013.
- Xilinx Partial Reconfiguration Workshop, Ottawa, Ontario, Canada, Nov. 6-7, 2012.
- HPCVL Parallel Programming Workshop, Ottawa, Ontario, Canada, Aug., 2012.
- 2012 Linux Symposium, Ottawa, Ontario, Canada, Jul. 11-14, 2012.
- Xilinx DSP Primer Workshop, Ottawa, Ontario, Canada, Jun. 7-8, 2012.
- 2011 International Conference on Electronics and Optoelectronics, Dalian, China, Jul. 29-31, 2011.

Talks

- Introduction to Virtualization and Xen, CEG4131, University of Ottawa, Canada, Oct. 28, 2013.
- pvFPGA, CODES+ISSS'13, Montreal, Canada, Sep. 30, 2013.
- Introduction to Virtualization, CEG4131, University of Ottawa, Canada, Dec., 2012.

Personality

- Innovative and creative thinking
- Excellent self-learning ability
- Excellent problem-solving ability
- Performs well under pressure
- High degree of initiative and responsibility