Chen Huang

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OBJECTIVE

A software engineering fulltime position with a company seeking strong coding, algorithm design and debugging skills

TECHNICAL SKILLS

Programming languages:	**Operating systems:**	**Developement tools:**
C/ C + +, Java, Perl, SQL, VHDL, systemC	Unix/ Linux and Windows	Visual Studio, Eclipse, Xilinx ISE/ EDK, Matlab, SQL Server

EDUCATION

University of California Riverside, Riverside, CA
Phd, Computer Science ***GPA: 4.0/4.0*** June 2012
Advisor: Prof. Frank Vahid

Beijing Univ. of Posts and Telecommunications, Beijing, China
Bachelor of Science, Information Science ***GPA: 3.76/4.0, Rank: 3rd in class of 180*** July 2007

PROJECTS

Embedded System Lab CSE Dept, UCR, 1/2008 - Present

- Current project: Synthesis of Digital Mockups of Physical Systems. I am developing a custom MPSoC architecture for modeling physical systems. The digital mockups can be used for medical device testing.
- A real- time face and eye detection software using VC + + with INTEL's OpenCV image processing library. I also implemented an embedded version of face detection on a Xilinx Virtex5 FPGA with better performance.
- An event driven simulator written in C + + for Online Reconfigurable Architecture: Developed an online management algorithm, which dynamically reconfigure the system based on the applications running on the system.

Beijing Univ. Posts and Telecom. Beijing, China, 2003~2007

- A visual simulation of airport escorts scheduling written in VC + +. The simulator includes real airport images that show the airport structure. The movement of each escort is visible during simulation.
- Implemented a novel multi- path feedback Ad- hoc routing protocol using ns2. I modified the routing protocol kernel written in C + + and achieved better performance compared to the original AODV routing protocol.
- Gobang game software with fine AI using VC#. Different AI strategies are developed in software for computer player.

INTERN EXPERIENCE

Facebook.com Palo Alto, CA
Software dev. intern June 2011 - September 2011
I worked in Search/ Infrastructure team in Facebook.
Intern project: Adding tag structure into Facebook typeahead forward index, so we can index other fields for an object other than only the title.
Intern task: Unique name search service and Mudslide aggregator implementation.

Amazon.com Seattle, WA
Software engineer intern June 2010 - September 2010

I worked in Supply chain/ Inventory preplanning team in Amazon.
Intern project: future pruduct glanceview modeling and simulation. I developed a model to predict future web- page glanceview based on historical glanceview data and demand forecast.
Intern tasks: 1, Buy date aware vendor lead time service integration. 2, Days of Cover model validation.

SELECTED PUBLICATIONS

C. Huang, F. Vahid. Automatic synthesis of physical system differential equation models to a processing element network on FPGAs. Under submission.
C. Huang, F. Vahid, and T. Givargis A Custom FPGA Processor for Physical Model Ordinary Differential Equation Solving, IEEE Embedded Systems Letters, Fall 2011 (to appear)

C. Huang, F. Vahid Scalable Object Detection Accelerators on FPGAs Using Custom Design Space Exploration IEEE Symposium on Application Specific Processors (SASP), June 2011, pp 115-121.

S. Sirowy, **C. Huang**, and F. Vahid. Online SystemC Emulation Acceleration. IEEE/ ACM Design Automation Conference, June 2010.

C. Huang, F. Vahid. Server- Side Coprocessor Updating for Mobile Devices with FPGAs. ACM Symp. on FPGAs, Feb 2010.

S. Sirowy, **C. Huang**, and F. Vahid. Dynamic Acceleration Management for SystemC Emulation. Adaptive and Reconfigurable Embedded Systems (APRES, part of ESWEEK), Oct 2009,

C. Huang, F. Vahid. Transmuting Coprocessors: Dynamic Loading of FPGA Coprocessors. ACM IEEE Design Automation Conference (DAC), 2009.

C. Huang, F. Vahid. Dynamic Coprocessor Management for FPGA- Enhanced Compute Platforms. IEEE/ ACM Int. Conf. on Compilers, Architectures, and Synthesis for Embedded Systems (CASES), Oct 2008.

C. Huang, D. Sheldon, and F. Vahid. Dynamic Tuning of Configurable Architectures: The AWW Online Algorithm . IEEE/ ACM Int. Conf. on Hardware/ Software Codesign and System Synthesis, (CODES/ ISSS), Oct 2008.

AWARDS AND HONORS

- Meritorious Winners 2006 Mathematical Contest in Modeling (MCM) by U.S COMAP
- 2007 Microsoft Imagine Cup Embedded Development Competition Worldwide 2nd Round
- 2nd Prize of China Mathematical Contest in Modeling (Beijing area) 2005
- Beijing Univ. of Posts and Telecom first class scholarship three times (2003, 2004, 2005)