Isaac Liu

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Education

M.S./ Ph.D. – Electrical Engineering and Computer Science
University of California, Berkeley   Expected: May, 2012
- Research in Real-Time Embedded Software Systems, Multi/Many Core Systems, Computer Architecture, Memory Systems
- Certificate in the Management of Technology Program from Haas School of Business

B.S. – Computer Engineering
University of California, Santa Barbara   Sept 2003 – Jun 2007
- Graduate top of the Computer Engineering class of 2007 with highest honors
- Recipient of IEC William L. Everitt 2006-2007 Student Awards of Excellence
- Overall GPA: 3.91 / Major GPA: 3.97

Skills

C/C++, Java, Ruby, Python, PHP, SQL, AJAX, jQuery, Ruby on Rails, Django, HAML & SASS, shell scripts, network programming, web APIs, HTML5, node.js, Android development, Labview, VHDL, Verilog, SystemC

Experience

Software Engineer Intern – National Instruments, Berkeley, CA   May 2011 – Aug 2011
- Implemented a Real-Time Common-Rail Fuel Injection Simulation using 1D Computational Fluid Dynamics on a multicore architecture with multiple soft cores on an FPGA.
- Added explicit precise timing control to the Xilinx Microblaze using a peripheral cores and FSL.

Software Architect – 3PO Inc., San Francisco, CA   Feb 2009 – Dec 2010
- Worked with this start up to design a multilingual instant text generation system
- Designed a multilingual classified ads prototype using ruby on rails backend with AJAX and jQuery

Software Engineer Intern – NVIDIA, Santa Clara, CA   May 2008 – Aug 2008
- Developed OpenGL-ES drivers for different platforms in the Embedded systems group
- Worked on porting a navigation system to different hardware platforms
- Developed scripts to aid in windows setup over the network for different hardware platforms

Software Design Engineer Intern – Microsoft, Redmond, CA   Jun 2006 – Sep 2006
- Developed tools to analyze and improve internal data structures used for windows deployment

Software Developer Intern – Novacoast Inc., Santa Barbara, CA   Dec 2005 – Apr 2006
- Renewed and restructured the Intranet invoice system using PHP/SQL with AJAX for cleaner and more efficient code

Projects

- **Real time Computer Architecture Design** – Precision Timed Machines (PRET), a research project to re-design computer architecture for predictability and repeatability. Implemented on the FPGA as a soft core (in VHDL) along with a software level timing accurate simulator.
- Y**ATAA** – Yet Another Twitter Android App. An app written to demonstrate android app development functionalities, including communication with web services, C2DM, background services, broadcast receivers, content providers and several system services.
- **fantasysportstools.net** – ruby on rails app using the yahoo fantasy sports API to manage fantasy basketball teams. Syncs NBA stats nightly to give projections and predictions. Aggregate news from various sites and use AJAX and jQuery for better user experience.
- **gschristian.org** - ruby on rails app with facebook graph API to sync events with facebook group. Uses paperclip gem to manage uploading and organizing audio/powerpoint resources.