

Saeid Barati

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RESEARCH INTERESTS	Computer and Multicore Processor Architecture Data Storage Systems Computer Networks Designing Dynamics Systems and Management Methods.	
EDUCATION	Sharif University of Technology , Tehran, Iran B.S. in Computer Engineering, 2008-2013 Shahid Beheshti High School , Shahr-e Kord, Iran Affiliated with the National Organization for the Development of Exceptional Talents (NODET), 2001-2008	
HONORS AND AWARDS	Ranked 4 th at Iran Programming Contest , 2007 Programming contest held for the senior students of high schools in Iran. About 60 contestants challenge their programming skills in QBasic language. Admission to Sharif University of Technology , 2008 Sharif University is the university of choice for the top ranking students attending the nationwide universities entrance exam (Konkooor) which has more than 300,000 participants each year. Member of the National Organization for Development of Exceptional Talents , 2001-present NODET student selection exam is held every year nationwide for students starting middle and high school. The organization is responsible for a number of schools across the country and trains the top students on a more advanced level in different field of study.	
RESEARCH EXPERIENCE	<i>Research Assistant</i> in the Data Storage Systems and Networks Lab , 2010-present Under supervision of Prof. H. Asadi Main Project: Regional Wearleveling: An Improved WearLeveling Method for SSDs Wearleveling in SSDs is used for balancing erase distribution over flash's wear. Before each write in a SSD, an erase cycle must occur. Because of limited lifetime of each block in an SSD, erase cycles must be spread across blocks in an SSD. Regional wearleveling in contrary with other algorithms, does not save history of erasures, but dynamically change Garbage Collecting threshold, logical address of blocks and boundaries of address translation table. So Regional wearleveling have improved performance and life endurance of an SSD in comparison with a simple dynamic wearleveling algortihm. Regional wearleveling is implemented in DiskSim(an SSD simulator). Side Project: DiskSim output refinement DiskSim is an efficient, accurate, highly-configurable disk system simulator. Output of DiskSim is text file with a lot of information and without any specified format. I developed a program for output refinement. It receives text file and desired information and makes a spreadsheet file with just desired information.	
PROFESSIONAL EXPERIENCE	Qmehr Software and IT Company , Tehran, Iran <i>Technical Developer</i> , March 2010 to November 2010 <ul style="list-style-type: none">• My duty was translating web components into Persian. Also I had customized some modules according to customer's order.	

TEACHING EXPERIENCE	<p>Teaching Assistant, Sharif University of Technology</p> <ul style="list-style-type: none"> • <i>Digital Electronics Laboratory</i> , Prof. A. Hemmatyar, Spring 2012 • <i>Digital Electronics</i> , Prof. M. Manzuri, Spring 2011 & Spring 2012 • <i>Scientific and Technical Presentation</i>, Prof. Kasaei, Spring 2011 & Spring 2012 • <i>Signals and Systems</i>, Dr. H. Veisi, Fall 2011 • <i>Introduction to programming (Pascal)</i>, Ph.D Candidate S. Dorri, Spring 2012
PROJECTS	<p>ERP Opentaps Customization, Under supervision of Prof. Yahya Tabesh; The goal of this project was to localize Opentaps software in Persian and customize its modules, as Technical Developer.</p> <p>Developing Victim Cache feature for Simple Scalar in Ubuntu, Computer Architecture course, Implementing a cache that stores garbage blocks for future use, written in C.</p> <p>Design and implement a minimalistic standard cell library, VLSI course. Creating a standard cell library through Cadence design flow for a 4bit multiplier.</p> <p>Regular Expression Finder, Microprocessor course. This project receives a regular expression and finds matched words in text by creating a finite automata, written in C++.</p> <p>Implement a Sign Bit Reduction Multiplier, Hardware Description Languages course, written in VHDL.</p>
TEST SCORES	<p>Toefl : 93/120 (Reading:23/30 ,Listening:22/30 ,Speaking:24/30 ,Writing:24/30);</p> <p>GRE : will be attended on October 2012;</p>
ACTIVITIES	<ul style="list-style-type: none"> • <i>Elected Member, Student Scientific Chapter (SSC)</i>, 2010-Present, Computer Engineering Dept. SSC is the student committee concerned with directing the department extra-curriculum activities. • <i>President, Student Scientific Chapter (SSC)</i>, 2011-2012, Computer Engineering Dept. As a president, I have directed some activities such as programming contests, computer related workshops and sciecntific talks. • <i>Technical Staff, 11th ICPC/ACM</i>, 2009, Tehran, Iran. I was a member of technical committee and my duty was to resolve technical and scientific problems during the contest. • <i>Chief of Staff, 12th ICPC/ACM</i>, 2010, Tehran, Iran. I was responsible for managing other staffs (Technical and General) to do their assigned duties. • <i>Technical Manager, 13th ICPC/ACM</i>, 2011, Tehran, Iran. I directed and managed the IT team to assemble, setup, and manage over 100 PC workstations and their network for the contest, many from individual components, on a very short timeframe (5 days). It proved to be a strong technical and management challenge requiring 24x7 attention and devotion. • <i>Executive Manager, 2nd Java Challenge AI Contest</i>, 2011, Tehran, Iran. As a leader, I was in charge of managing executive and scientific committee members to hold on country wide AI contest.
SKILLS	<p>Human Languages</p> <ul style="list-style-type: none"> • Persian (Farsi): Native, English: Fluent. <p>Programming Languages: C/C++, Java, VHDL, Verilog, SystemC, Assembly (68k and Intel 8086), Pascal.</p> <p>CAD Tools : DiskSim, Quartus, Xilinx ISE, Codevision AVR, Modelsim, SimpleScalar, HSpice, PSpice, L-Edit, Design Compiler, Circuit Maker.</p> <p>Web/DB Technologies: HTML, CSS, Joomla, Wordpress, PHP , Mysql.</p> <p>Operating Systems: Ubuntu, Windows.</p>