SHUO LI

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OBJECTIVE

Seeking an entry-level **full-time** position as a software engineer or application developer

EDUCATION

University of Illinois at Urbana-Champaign - Urbana, IL

Master of Science in **Electrical and Computer Engineering**, GPA: 3.45/4.00   05/2015
- *Teaching Assistant*: Digital Systems Laboratory; *Researcher*
- Courses and Self-studies: Data Structures, Algorithms, Database, Web Development, Real-Time Systems, Operating Systems and Systems Programming, Systems on Chip Design

University of Illinois at Urbana-Champaign - Urbana, IL

Bachelor of Science in **Electrical Engineering**, Graduation with Honors, GPA: 3.58/4.00   05/2013

PROJECT EXPERIENCE

Search Engine for Wikipedia articles using Apache Hadoop   01/2015 - 04/2015
- Wrote a XML parser in Java to format title and text information into individual articles
- Implemented Map and Reduce functions in Java using Hadoop (MapReduce) to form the inverted index
- Built Search and Rank functions in Java that return a list of documents ranked according to the occurrence frequency of the word searched by the user

Operating Systems - Virtual Memory Page Fault Profiler   09/2014 - 12/2014
- Designed a lightweight page fault rate profiler tool in C and implemented it as a Linux kernel module
- Applied kernel-level APIs for character devices, vmalloc() and mmap()
- Tested the kernel-level profiler by using a given user-level benchmark program
- Analyzed, plotted and documented the profiled data as a function of the workload characteristics

Operating Systems - Rate-Monotonic CPU Scheduler   01/2014 - 03/2014
- Developed a real-time RM scheduler module in C that schedules periodic tasks in Linux kernel using kernel scheduling API, timer and proc file system
- Implemented the bound-based admission control for the scheduler
- Implemented an user-level application to test the scheduler

Database - Web-based Course Search and Sign-up Service (Group)   09/2013 - 12/2013
- Created an improved version of online course registration service that can support more searching options, provide information for making study plan, and gather information and feedback from users
- Designed the conceptual database in E-R diagram; wrote a parser to read and extract raw data from website; documented data into XML files; populated the database; wrote PHP script to query MySQL
- Applied DFS to prerequisite tree stored in database for prerequisite generation and applied Google Graph API to display the information
- Developed the webpage with HTML, CSS, JavaScript and jQuery

Real-Time Systems - Robot Remote Control on an Android Phone (Group)   09/2013 - 12/2013
- Designed an iRobot (Roomba) control commands prototype and safety controller in Python
- Developed an android project to communicate with the robot (control its movements and kill its threads)
- Implemented a voice control feature in android app to realize basic movements (move, stop, spin)

SKILLS

Languages	**proficient**: Java, Python, C, Verilog; **basic**: C++, SystemVerilog
Web Development	**proficient**: HTML5, CSS, JavaScript, jQuery; **basic**: Ruby, PHP, SQL, AngularJS
Tools	Eclipse, Visual Studio, Git, SVN
Systems	Mac OS X, Linux, Windows
Others	OOP, Agile Software Development, Detailed-oriented, Team-player, Strong self-learning