SHUO LI

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OBJECTIVE Seeking an entry-level full-time or intern position as a software engineer

EDUCATION University of Illinois at Urbana-Champaign Urbana, IL

> M.S. in Electrical and Computer Engineering, GPA: 3.45/4.00 May 2015

> University of Illinois at Urbana-Champaign Urbana, IL May 2013 B.S.(Honors) in Electrical Engineering, GPA: 3.58/4.00

Work University of Illinois at Urbana-Champaign

Urbana, IL

Research Assistant, advised by Prof. Jose Schutt-Aine Mar. 2014 - Present

• Implemented a Traditional Digital Direct Synthesizer (DDS) on FPGA

• Simulated in ModelSim and investigated the sources of spurious signals in theory

 Designed and implemented a Truncation Spurs-Free Structure of DDS on FPGA and verified the spurs reduction with oscilloscope and spectrum analyzer

Teaching Assistant, ECE 385 Digital Systems Laboratory

Aug. 2013 - Present

PROJECT EXPERIENCE

EXPERIENCE

Database: Web-based CS Course Registration System Sep. - Dec. 2014

- Analyzed client requirements, specified system functionalities, identified integrity constraints and designed the conceptual database with E-R diagrams
- Normalized database schemas to 3NF, which reduced redundancies in the database
- Wrote a parser with Python scripts to read and extract raw data from UIUC course website; documented data into XML files, then populated the MySQL database; wrote PHP scripts to query database
- Developed the user interface and webpage with HTML/CSS and JavaScript

Real-Time Systems: Android App-Remote Robot Control Sep. - Dec. 2013

- Programmed an iRobot (Roomba) control commands prototype with Python
- Developed an application with Java on an android phone to control the robot
- Implemented voice control function in the android application

VLSI Design: Microprocessor Design and Layout Sep. - Dec. 2012

- Designed, implemented, simulated, and laid out a 16-bit microprocessor datapath (Am2901 250nm) with Cadence Virtuoso and designed the controller in Verilog
- Developed test benches for functional verification with NC-Verilog simulator
- Minimized the layout area by optimizing logic design, floorplanning, and routing
- Performed physical verification (DRC and LVS) for each layout with Cadence

SKILLS Languages **proficient**: C++, Java, Python; basic: C

> Web Prog proficient: JavaScript/jQuery, HTML/CSS; basic: SQL HDL/HVL proficient: Verilog/SystemVerilog; basic: VHDL

Tools Eclipse, Visual Studio, Xcode, Git

Softwares Cadence, Quartus II, ModelSim

academic and teaching experience in FPGA, Oscilloscope, Spectrum Analyzer

Courses & INDIPENDENT STUDIES

Data Structures, Database Systems, Real-Time Systems, Web Programming, VLSI System Design, System on Chip Design, Digital Systems Laboratory, IC Device Theory and Fabrication, Digital Signal Processing, Predictive Data Analytics