

Education

Master of Science in Computer Science Engineering, expected April 2012

The University of Michigan, Ann Arbor, MI

- Program Focus: Computer Hardware and Architecture

Bachelor of Science in Electrical and Computer Engineering, May 2010

Summa Cum Laude

Temple University, Philadelphia, PA

- Grade Point Average: 3.93 (Cumulative)
- Temple University Honors Program
- Eta Kappa Nu: Member, Iota Sigma Chapter
- Honors Directors List: Fall 2006 forward
- College of Engineering Dean's list: Fall 2006 – Fall 2008

Relevant Courses

- Multivariate Calculus, Differential Equations, Discrete Math, Physics I and II, AC and DC Circuit Science, Digital Circuit Design, Programming in C, Programming in Java, Matlab, Signal Analysis, Stochastic Processes, Embedded System Design, Classical Control Systems Engineering, Analog and Digital Communications, Computer Networking, Data Structures in Java and C++, Telecommunications Engineering, Advanced Compilers, Advanced Computer Architecture, Parallel Computing Architecture, Artificial Intelligence, Microprocessor Systems, Embedded Control Systems

Experience

The University of Michigan, Ann Arbor, MI, January 2011 – Present

Graduate Student Research Assistant

- Researcher for the *Compilers Creating Custom Processors* computer architecture group
- Exploring the effects of fault injection in embedded microarchitectures; working to mitigate the effects of data and instruction corruption via detection and recovery schemes while striving to maintain low energy, space, and cost overheads
- Research with the Gem5 simulator system and the LLVM compiler infrastructure system
- Paper reviewer for various international computer architecture conferences

The University of Michigan, Ann Arbor, MI, August 2010 – December 2010

Graduate Student Instructor

- Graduate Student Instructor for EECS 280: Programming and Introductory Data Structures
- Taught two discussion sections, held office hours to guide students in assignments and provide extra support, and participated in creating, proctoring, and grading exams

Temple University College of Engineering, Philadelphia, PA, May 2010 – August 2010

Engineering Research Supervisor

- Supervised undergraduate research at Temple University's College of Engineering, guiding rising seniors' research in the Institute for Signal and Information Processing (ISIP) lab.

Temple University College of Engineering, Philadelphia, PA, September – December 2009
Engineering Teaching Assistant

- Teaching assistant for introductory engineering course, leading lab exercises, helping aid students, and evaluating individual student performance

NASA's Goddard Space Flight Center, Greenbelt, MD, May – August 2009
Summer Contractor with Vantage Systems Incorporated

- Provided engineering support for the ExPRESS Logistics Carrier Avionics Module
- Performed avionics systems testing and telemetry monitoring in thermal-vacuum, electro-static sensitive, contaminant sensitive, and high voltage conditions
- Worked with engineers on avionics assembly schematics and reports

Temple University College of Engineering, Philadelphia, PA, June – August 2008
Undergraduate Summer Research Program Participant and Class Teaching Assistant

- Conducted research with autonomous Epuck swarm robots in the System Chip Design Laboratory
- Teaching assistant for summer robotics theory and design course, helping aid students, and leading lab exercises

Temple University, Philadelphia, PA, July 2006 – January 2008
TECH Center Computer Lab Consultant

- Provided technical support to students, faculty and staff using the TECH Center lab
- Maintained systems within the computer lab including computers, scanners, printers, copiers, and specialty lab equipment

Awards and Activities

- Temple University John L. Rumpf award honorable mention: May 2010
- Who's Who Among College Students Nominee: 2008 and 2010 - whoswho@rrpub.com
- NASA Scholarship Recipient: December 2008 and September 2009
- Temple University Student Advisory Board - Board Member: 2009
- The Boeing Company Scholarship Recipient: 2008-2009 school year
- Temple U. Undergraduate Summer Research Program Stipend Recipient: Summer 2008
- IEEE – Student/Graduate Student Member: 2006 forward

Skills

- Programming: C, C++, Java, Python, Shell Script, Assembler, MATLAB/Simulink, Verilog
- Hardware: Assembly, upgrading, and troubleshooting of computers and networks; proficiency with soldering equipment and circuit elements
- Computer Architecture: Research with advanced processor hardware including design and verification of an out-of-order P6 architecture processor and a distributed cache coherency protocol; Research with advanced microprocessor architecture and code generation using gem5 and LLVM
- Software: Web design including implementation of HTML, JavaScript, PHP and MYSQL; Microsoft Office Suite (2003/7); Adobe Photoshop; Adobe Acrobat Pro; Xilinx ISE and EDK, MATLAB's Simulink, knowledge of Ubuntu Linux, Windows 98, XP, Vista, 7, and Mac OS X