

Mailing Address
Urbana, IL

Taylor T. Johnson

Permanent Address
Houston, TX

EDUCATION

05/2010 to Present

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, Champaign-Urbana, IL
PhD candidate in the Department of Electrical and Computer Engineering focused in Computer Engineering, particularly fault-tolerant distributed, real-time embedded control systems

08/2008 to 05/2010

Master of Science (MS), Electrical and Computer Engineering
Thesis: *Fault-Tolerant Distributed Cyber-Physical Systems: Two Case Studies*

08/2004 to 05/2008

RICE UNIVERSITY, Houston, TX
Bachelor of Science in Electrical Engineering (BSEE)

EXPERIENCE

08/2008 to Present

Graduate Research Assistant (RA) and Graduate Teaching Assistant (TA)
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, Champaign-Urbana, IL

- Performing research with Prof. Sayan Mitra on distributed cyber-physical systems
- Led discussion section for introductory computer engineering course (ECE190, Spring 2009, 2010)
- Led lab section for introductory electrical and computer engineering course (ECE110, Fall 2008)

05/2010 to 08/2010

Summer Intern – Electrical Engineering
SCHLUMBERGER TECHNOLOGY CORP., Sugar Land, TX

- Developed real-time system identification of alternator and validated use of identified quantities in feedback loop of adaptive real-time motor control

05/2008 to 08/2008

Summer Intern – Electrical Engineering
ETUDES ET PRODUCTIONS SCHLUMBERGER, Clamart, France

- Analyzed and modeled existing analog and mixed-signal electronics PCBs for correctness, resulting in component optimizations for manufacturing and documentation for sustainability

08/2007 to 05/2008

Contractor – Assistant Electrical Engineer
SCHLUMBERGER TECHNOLOGY CORP., Sugar Land, TX

- Implemented new features on Actel ProASIC^{PLUS} FPGAs in VHDL to remove additional PCBs

05/2007 to 08/2007

Summer Intern – Computer Engineering
SCHLUMBERGER TECHNOLOGY CORP., Sugar Land, TX

- Improved FPGA design on an Actel ProASIC^{PLUS} in VHDL to be used in SV-PWM motor control

05/2006 to 08/2006

Summer Intern – Computer Engineering
SCHLUMBERGER TECHNOLOGY CORP., Sugar Land, TX

- Designed, implemented, tested, and documented a networked boot loader and common application framework in 8051 assembly and C for the TI MSC1210 microcontroller, utilizing CAN for networking via an SPI interface to a Microchip MCP2515 CAN transceiver

05/2005 to 08/2005

Summer Intern – Computer Science
SCHLUMBERGER TECHNOLOGY CORP., Sugar Land, TX

- Designed, implemented, and documented an automated system to gather, store, and report metrics on embedded systems source code through a database-driven intranet web application

06/2002 to 06/2004

Business Application Programmer
BLUE BELL CREAMERIES, L.P., Brenham, TX

- Developed intranet web applications with SQL-backend to replace aging desktop applications

PROFESSIONAL ORGANIZATIONS

- ACM: Association for Computing Machinery, *Student Member*, 2003-Present
- IEEE: Institute of Electrical and Electronics Engineers, *Chapter Vice President 2007*, 2004-Present

RESEARCH AND HONORS

- AMD Digital Logic Design Competition, Rice University, ELEC326, *First Place Team*, 2006
- Coca-Cola Scholars Scholarship Competition, *Finalist Recipient*, 2004
- Texas State Science and Engineering Fair, *Second Place in Computer Science*, 2004
- Intel International Science and Engineering Fair, *Finalist in Computer Science*, 2003

TECHNICAL SKILLS

Languages: Assembly (8051), C (ANSI, 8051), C#, Java, Matlab, PHP, Scheme, Verilog, VHDL
Specifications: CAN, HTML, LaTeX, LDAP, regex, SPI, SQL, UML, XML
Software: Actel Libero, ALDEC Active-HDL, eclipse, Lint, Matlab, Mathematica, ModelSim, Microsoft Visual Studio, MySQL, PSPICE, Simulink, Synplicity Synplify, vi, Xilinx ISE
Other: Standard lab equipment such as power supplies, oscilloscopes, function generators, etc.