

Work Experience:

3 Phoenix, Wake Forest, NC <i>Systems Engineer</i> Leading a multi-disciplinary team (mechanical, electrical, software, and production) through the development, design, and manufacture of production level units to be delivered under contract to the US Government. The system is a photonics control system requiring complex positioning photonics sensors, their control and monitoring. The project emphasizes the use of COTS components in a modular and highly reliable system. Responsible for contract proposal, requirements development, high level design, team scheduling and tasking, customer interaction, trade study and comparative analysis of COTS components, and providing direction for the implementation.	2010 – Present
Ericsson, RTP, NC <i>Hardware Design Engineer</i> Participated on numerous small teams, responsible for developing and delivering IP into chip projects. Tasks include negotiating and influencing IP requirements based on market analysis, conversion of requirements to design specifications and implementation of those specifications in RTL. Responsible for implementation of BCH error correction logic (8-bit error correction) as applied to NAND memories. Complete design responsible from scheduling with time estimates, algorithm development to RTL and verification. Verification using Mentor Graphics Open Verification Methodology, an object oriented constrained random testing environment in SystemVerilog.	2004 – 2009
Cipheroptics, Raleigh, NC <i>Hardware Engineer</i> Designed a high speed PowerPC management platform requiring component evaluation and selection, circuit design, and assisting PCB CAD engineer in layout. Designed, implemented, and maintained CPLD source for both Altera and Xilinx programmable logic platforms for the company's 3 products in all stages of development and manufacturing. Created and maintained boundary scan test suites using the Corelis ScanPlus IEEE 1149.1 tools.	2001 – 2003
Ericsson, RTP, NC and Lund, Sweden <i>Co-op Engineer for Data Accessories</i> Designed and implemented a platform for testing infrared transceiver characteristics as part of a feasibility study to select components for use in mobile phones. Created communications software for said platform and verified transceiver functionality using bit error ratio as a metric. Tested cellular data connections in a mobile environment.	1995, 1996, 1997

Education:

North Carolina State University, Raleigh, NC Hours Completed: 42 Major: Computer Engineering	Class: Doctorate Topic: Computer Architecture	2000 – 2002
North Carolina State University, Raleigh, NC Degree: Master of Science Major: Computer Engineering		1998 – 1999
North Carolina State University, Raleigh, NC		1993 – 1997

Duly licensed Professional Engineer in the state of North Carolina

Classified Security Clearance 2010
Active Classified Security Clearance hosted by 3 Phoenix, Inc.

Membership Activities:

WaterPartners International 1997 – 2006
Fundraising Event Chairperson 2006

Responsibilities included organization and execution of planning meetings and management of a dozen volunteers. The event, a charity auction and dinner, raised \$50000.

Tau Beta Pi 1996 – 2000
Publicity Chair 1998 – 1999

Responsibilities included maintenance of group web site, mailing lists, and flyer publicity around campus. Achievements included creation of a set of web site templates for easy maintenance and upgradeability and promotion of the organization resulting in the some of the largest induction classes at NC State.

Inductions Chair 1996

Responsibilities included organization and execution of inductions meetings throughout the semester, planning and execution of a hosted dinner honoring inductees, coordination of the induction ceremony, and establishing inductee eligibility.

Presentations:

Eastern North Carolina Region IEEE Embedded Systems Group 2004
Verilog vs. VHDL, a Comparative Analysis for use in Embedded Systems

Professional Membership:

- Member of the Institute of Electrical and Electronics Engineers (IEEE)
- Member of the Tau Beta Pi National Engineering Honor Society
- Member of the Eta Kappa Nu National Honor Society
- Member of the Phi Eta Sigma Honor Society
- Member of the Gamma Beta Phi Society
- Member of the Order of Saint Patrick Engineering Honor Society
- Member of the Golden Key National Honor Society