

BRIAN PRATT

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EDUCATION

- May. 2002 – present **Brigham Young University**, Provo, UT
- **PhD Computer Engineering** – April 2011
 - Research Emphasis: Reliable Digital Communications on FPGAs
 - Dissertation: *Analysis and Mitigation of SEU-induced Noise in FPGA-based DSP Systems*
 - Graduate GPA: 3.95
 - Reconfigurable Computing - Digital Communications
 - Fault-tolerant Computing - Error-Control Coding
 - Computer Architecture - High level Synthesis
 - Computer Arithmetic - Stochastic Processes
 - **BS Computer Engineering** – April 2005
 - Graduated *Magna Cum Laude* with 3.92 GPA
 - Digital and Analog Circuit Design - Real-Time Operating Systems
 - TCP/IP Networking - Computer System Architecture
 - Signals and Systems - Software Engineering
- Aug. 1998 – Dec. 1999 **Orange Coast College**, Costa Mesa, CA
- Three semesters with 4.0 GPA
 - General Education, Advanced Math, Physics, and Computer Science

EXPERIENCE

- Dec. 2011 – present **FPGA Design Engineer at L-3 Communications**, Salt Lake City, UT
- Part of the Advanced Communications and Modem Group
 - Developing FPGA-based communications components and systems
- April 2004 – April 2005, Aug. 2005 – present **Research Assistant at Brigham Young University**, Provo, UT
- Research radiation effects and mitigation strategies on FPGAs in space systems
 - Design digital circuits using VHDL and JHDL (A Java-Based HDL)
 - Present various research papers concerning FPGA reliability
- May 2005 – Aug. 2005 **Technical Intern at Los Alamos National Laboratory**, Los Alamos, NM
- Researched FPGA reliability and radiation-induced error mitigation
 - Developed test fixtures and VHDL modules
 - Conducted practical reliability tests at proton accelerator

SKILLS AND INTERESTS

Technical Skills

- Programming in C, C++, Java, Objective-C and Matlab
- Hardware design in VHDL and Verilog
- HW synthesis/simulation with Xilinx XST and EDK, Synplicity, ModelSim
- Scripting with make, bash, csh, sed, etc.
- Windows, Unix/Linux, and Mac OSX

Foreign Language

- Spanish – Two years of church service as a missionary in Spain (2000-2002)

Interests

- Reconfigurable Computing, Embedded Systems, Digital Communications
- Member – IEEE Student Chapter, Tau Beta Pi

REFERENCES

Michael Wirthlin
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