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OBJECTIVES

- Obtain a position with a multi-disciplinary team which will design and implement challenging software and/or hardware projects on a daily basis
- Work on projects which will challenge me and constantly require me to develop new skills and to improve old ones as well

WORK EXPERIENCE

Associate Engineer, TeleworX
Reston, VA, March - Present

- 4G LTE Network Consulting

Research Assistant, George Mason University
Fairfax, VA, December 2013 – Present

- FPGA Circuit Design and Implementation

Founder, Catoblepas Technology Group
Leesburg, VA, February 2014 – Present

- Software and hardware project implementation from idea conception to prototyping

Network Engineer Intern III, Sprint Nextel
Reston, VA, May 2013 – September 2013

- Responsible for meeting with vendors to design ways to improve testing efficiency
- Developed a variety of testing tools using Python and Sikuli for test automation

4G & PTT Network Development Intern, Sprint Nextel
Reston, VA, August – September 2010

- Built 4G device testing tools for use by contractors at Sprint
- Developed input templates for storing test data with VBA (Visual Basic for Applications)
- Researched 4G Devices and Technology

EDUCATION

M.S. Computer Engineering – Microprocessors and Embedded Systems Design
Awarded Dec. 19, 2013
George Mason University, Fairfax, VA 22031

B.S. Computer Engineering – Computer Networks
Awarded Jan. 14, 2012
George Mason University, Fairfax, VA 22031

Related Coursework:

- Distributed Software Engineering
- Advanced Applied Cryptography
- Cryptography and Computer Network Security

- FPGA and ASIC Digital System Design with VHDL
- Microcontrollers and Computer Architectures
- Network Design and Implementation
- Computer Network Architectures and Protocols
- Linear Electronics and Electric Circuit Analysis
- VLSI Design for ASICs
- Sequential Machine Theory
- Computer Arithmetic
- Digital Signal Processing

PROJECTS AND DESIGNS

- Built a project to simulate and decode the NIST broadcast, generate a system clock, compare the two and auto-correct using the MSP430 microcontroller in order to reduce the magnitude of offset due to the fundamental inaccuracies of quartz clocks
- Successfully implemented and verified the AES-128 cryptographic standard on a Nexys3 FPGA
- Using the Spartan-3E FPGA, developed a game of pong and configured it to be played on a monitor via a VGA cable
- Developed a NUCA Cache for LLC Simulation for use with SMTSIM
- Using the MSP430 microcontroller developed code and hardware to drive an LCD as well as SSDs to perform various functions while controlling inputs with an external keypad
- Open Source Cryptography Projects: https://github.com/JeremyBarthelemy/OpenSource_Cryptography

AWARDS

- **Awarded 1st Place** for Security Center Microcontroller Design Project, GMU Volgenau School of Engineering – **2012**
- **Awarded 2nd Place Results, 2nd Place Presentation** for "New Hardware Architecture for Montgomery Multiplication by Huang et al. with Application to Fast Implementation of RSA", GMU Volgenau School of Engineering – **2013**
- Computer Science Excellence Award – 2006

SKILLS

Computer Languages:	C, Java, VHDL, Python, various assembly languages, PHP, HTML, CSS JavaScript, Verilog
Applications/Tools:	Synopsys ASIC Design Flow Tools (Design Compiler, Primetime, ICC, and Formality), OrCAD (PSPICE), Git, MATLAB, Maple, IAR Embedded Workbench, Active HDL, Xilinx ISE, ModelSim, Eclipse, Android
Systems:	Windows and Linux-based Systems

LANGUAGES

- Advanced Speaking and Writing Skills in: English, French, and Italian
- Basic comprehension of: Brazilian Portuguese, Spanish, Russian, and Greek