Jeremy L. Barthélemy **JBARTHEL@gmu.edu**
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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 2014 – Present

- 4G LTE Network Consulting
- Development of product requirements and test plans for clients

Research Assistant, George Mason University
Fairfax, VA, December 2013 – April 2014

- FPGA Circuit Design and Implementation for government contract through the university

Network Engineer Intern, 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