**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 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  
CEO and Founder, Catoblepas Technology Group  
Leesburg, VA, February 2014 – Present**

* Hardware and Software Designer through the entire stage of project development – from concept inception and prototyping to product marketing
* Experience in Java, VHDL, C, Python, and with various microcontrollers

**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 DesignAwarded Dec. 19, 2013  
George Mason University, Fairfax, VA 22031  
 **B.S. Computer Engineering** – Computer NetworksAwarded 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