

**Jeremy L. Barthélemy**  
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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
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## **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
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## **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
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## 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](https://github.com/JeremyBarthelemy/OpenSource_Cryptography)
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## AWARDS

- **Awarded 1<sup>st</sup> Place** for Security Center Microcontroller Design Project, GMU Volgenau School of Engineering – **2012**
  - **Awarded 2<sup>nd</sup> Place Results, 2<sup>nd</sup> 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
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## SKILLS

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