MICHAEL MELI

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EDUCATION:

North Carolina State University, *Raleigh, NC*
- M.S. in Computer Science   May 2018
- Thesis research focusing on applications of data science to indoor localization tracking

North Carolina State University, *Raleigh, NC*
- B.S. in Electrical Engineering and Computer Engineering (Double Major)   May 2016
- 4.0 GPA (Summa Cum Laude, Valedictorian)

PROFESSIONAL EXPERIENCE:

Software Engineering Intern, *Cisco Systems, Raleigh, NC*   May 2016 – August 2016
- Led an effort to convert the security offerings of a team in Cisco's Security Organization from using proprietary public key certificates to using standardized X.509 certificates, allowing for greater accessibility for customers.
- Produced extensive toolchains to integrate support for X.509 certificates into the existing build process while adhering to the standards laid out in various RFC documents.

Software/Hardware Engineering Intern, *Cisco Systems, Raleigh, NC*   May 2015 – August 2015
- Worked on a cross-functional hardware and software engineering team in Cisco's Security Organization developing a trusted boot process for both internal and external hardware products.
- Developed software in C and Python to integrate with hardware and enhance existing security procedures.
- Produced Verilog RTL to enable additional security features within the team's IP offering.
- Earned a Cisco "Security Green Belt" certification by demonstrating advanced security engineering knowledge.

Software Development Intern, *Mi-Corporation, Durham, NC*   May 2014 – August 2014
- Collaborated directly with customers to develop custom enterprise mobile data capture solutions.
- Developed new and improved features for Mi-Corporation's industry leading "software as a service" products.
- Worked with Windows, Android, and iOS devices, writing code in C#, JavaScript, VB.NET, and ASP.NET.

PROJECT EXPERIENCE:

Biometric Hydration Shirt, *Senior Design Project, NC State University*   August 2015 – May 2015
- As part of NC State's Senior Design class, created a biometric shirt that monitors the wearer's hydration level.
- Developed an open-source embedded software library utilizing I2C communications to interface an AD5933 impedance analyzer chip to a Bluetooth-enabled RFDuino microcontroller (available on GitHub).
- Created an Android application that received and displayed biometric information via Bluetooth, performing digital signal processing and applying an experimental hydration algorithm in the process.

Internet Connected Computer Case Lighting, *Personal Project*   July 2015
- Architected a solution for being able to control colored lighting inside a computer case using an internet website, hosted on a Raspberry Pi, by sending WiFi commands to a microcontroller.
- Produced a prototype PCB that allowed for the interfacing of an Arduino microcontroller, ESP8266 WiFi Module, and a WS2812 LED strip.

LED Light Strip Control via Android Application, *Personal Project*   January 2015
- Completed an end-to-end solution for controlling an LED light strip via a microcontroller and Android app.
- Wrote a custom open-source C library for interfacing with WS2812 LEDs for the MSP430 (available on GitHub).
- Developed an Android application that communicated over Bluetooth with an MSP430 to control the strip.

SKILLS:

Computer: C, C#, Java, JavaScript, jQuery, Python, Verilog, VB.NET, C++, Assembly, HTML5, CSS3, MATLAB, SQL
Platforms: Windows, Linux, Android, iOS, Arduino, MSP430, Cortex ARM, Xilinx, Altera