**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