

# MICHAEL BELLA

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## TECHNICAL STRENGTHS

<b>Programming Languages</b>	Python, C, LabView, Verilog
<b>Software Tools</b>	Eclipse, Git, SVN, Code Composer Studio, IAR, Spice AWR Microwave Office, CADSoft Eagle, Matlab
<b>Design Experience</b>	Low Power Embedded Systems, High Precision Analog Measurement Analog Design, SMPS Design, RF Matching & Amplifiers
<b>Lab Skills</b>	Root Cause Analysis, SMD Soldering, Wiring harness construction, PCA Bringup and Debugging, Prototyping, Build designs from print
<b>Other Technical Experience</b>	I2C, SPI, JTAG, Boundary Scan

## WORK EXPERIENCE

**Apple Inc. – Hardware Test Engineering** October 2013 - Present  
*Electrical Engineer* Cupertino, CA

- Design and implement test plans for component and system level testing on iOS and accessory projects
  - Manage test vendors and contract manufacturers to ensure that all tests are properly implemented.
  - Develop python scripts for test automation and data processing.
  - Work with engineering teams to identify test line issues, and drive them to root cause.

**KLA-Tencor – SensArray Group** December 2011 - October 2013  
*Electrical Engineer* Milpitas, CA

- Developed production code for ultra low power MSP430 based systems targeted at semiconductor metrology.
  - Designed and characterized RFID systems for use in ultra low power embedded applications.
  - Worked with a team to design new embedded system architectures to lower power consumption, improve measurement accuracy, increase system flexibility, and increase product reliability.
  - Modified existing embedded system firmware and hardware to work with new types of sensors.
- Designed test fixtures for both production and R&D use.
  - Designed and tuned RF matching networks for use in high power and plasma systems.
  - Developed firmware and software to communicate with and process data from several being evaluated.
  - Characterized sensors including optical, temperature, E-Field, and thermopiles.

**KLA-Tencor/SensArray Internship** June 2005 - December 2011  
*Electrical Engineering Intern* Milpitas, CA

- Debugged and performed FA on several types of low power embedded systems.
- Developed LabView applications to interface with test equipment and embedded systems for automated testing.

## PERSONAL & STUDENT PROJECTS

**Kite Control System for Wind Power Generation** 2013 - Present

- Started this project as part of a team at the first Makathon competition ([www.makathon.org](http://www.makathon.org))
- Designed rigging to control power kite lines using a servo or stepper motor
- Developing python code to detect a kite using a webcam and openCV
- Developing python library to send commands and setup data to a Logosol motor controller

**Bike Light - 1000 lm Headlamp and RGB Taillamp** 2012

- Designed and programmed a bikelight controller to perform battery monitoring and control RGB LED arrays.
- Calculated power budget, and selected appropriate LED drivers for my application.

**SJSU Formula Hybrid Vehicle Team** 2010 - 2011

- Developed firmware for a PIC based battery management system.
- Helped teammates debug issues with their high power switching converter.

## EDUCATION

**San Jose State University** December 2011  
B.S. in Electrical Engineering