

# MICHAEL BELLA

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## 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 efficient implementation of all required tests.
- Work with cross functional engineering teams to identify test line issues and drive them to root cause.
- Automate functional testing and data processing tasks using Python.

### KLA-Tencor – SensArray Group

December 2011 - October 2013

*Electrical Engineer*

*Milpitas, CA*

Low Power Embedded System Design - Research & Development

- Adapted existing embedded system firmware and hardware for use with new sensor types.
- Designed, tested, and realized custom RFID systems for use in ultra low power embedded applications.
- Worked with a team to design a new embedded system architecture to lower power consumption, improve measurement accuracy, increase system flexibility, and increase product reliability.

Test Fixturing - Production and Research & Development

- Characterized sensors including optical, temperature, E-Field, and thermopiles.
- 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 sensors being evaluated.

### KLA-Tencor/SensArray Internship

June 2005 - December 2011

*Electrical Engineering Intern*

*Milpitas, CA*

- Debugged and performed failure analysis on 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

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

### 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.

### Formula Hybrid Vehicle Team - SJSU

2010 - 2011

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

## TECHNICAL STRENGTHS

### Programming Languages

Python, C, LabView, Verilog

### Software Tools

Eclipse, Git, SVN, Code Composer Studio, IAR, Spice  
AWR Microwave Office, CADSoft Eagle, Matlab, JMP

### Design Experience

Low Power Embedded Systems, High Precision Analog Measurement  
Analog Design, PCB Layout, SMPS Design, RF Matching & Amplifiers

### Lab Skills

Root Cause Analysis, SMD Soldering, Wiring Harness Construction,  
PCA Bringup and Debugging, Prototyping, Build Designs from Print

### Other Technical Experience

I2C, SPI, JTAG, Boundary Scan

## EDUCATION

### San Jose State University

December 2011

B.S. in Electrical Engineering