# MICHAEL BELLA

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#### TECHNICAL STRENGTHS

Design Experience High Precision Analog Measurement and Design, PCB Layout

Verilog, I2C, SPI, JTAG, RF Matching Network & Amplifiers Design

Lab Skills Oscilloscope, Network Analyzer, Multimeter, 4Wire LCR Meter

Root Cause Analysis, SMD Soldering, Prototyping

Software Tools Eclipse, Git, SVN, Code Composer Studio, IAR, Spice

AWR Microwave Office, CADSoft Eagle, Matlab, JMP

Programming Languages Python, C, LabView

#### 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

Milpitas, CA

Electrical Engineer

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).

#### 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.

#### **EDUCATION**

# San Jose State University