# MICHAEL BELLA

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#### 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

#### 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

- Rewrote scheduling and flash data storage code in order to use an existing code base with a new types of sensors.
- Developed firmware for MSP430 family microcontrollers to evaluate new sensor types for customer application investigations.
- Worked as part of a team to design a new embedded system architecture to lower power consumption, improve measurement accuracy, increase system flexibility, and increase product reliability.
- Developed python code to extract step heights from data generated by research prototypes.
- Wrote LabView applications to use test equipment such as Agilent 34410A, 34970A, oscilloscopes, and LCR meters.

# 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 B.S. in Electrical Engineering December 2011