# MICHAEL BELLA

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### TECHNICAL STRENGTHS

Programming Languages Python, C, LabView

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

AWR Microwave Office, CADSoft Eagle, Matlab

Design Experience Low Power Embedded Systems, RF Matching Networks & Amplifiers

Analog Signal Processing, High Precision Analog Measurement, SMPS Design

Lab Skills Root Cause Analysis, SMD Soldering, Wiring harness construction,

PCA Bringup and Debugging, Prototyping, Build designs from print

Other Technical Experience Low Power System Design, I2C, SPI, JTAG, Boundary Scan

#### WORK EXPERIENCE

Electrical Engineer

## Apple Inc. - Hardware Test Engineering

Electrical Engineer

Cupertino, CA

October 2013 - Present

- · Design and impliment test plans for component level verification on NPI projects
  - Manage test vendors to ensure that all tests are properly implimented.
  - Develop python scripts for test automation and data processing.
  - Identify test line issues and quickly drive them to root cause.

## KLA-Tencor - SensArray Group

December 2011 - October 2013

Milpitas, CA

- · Developed production code for ultra low power MSP430 based systems.
  - Designed embedded systems to serve as platforms for new sensor technologies.
  - Adapt existing measurement system architectures for use with new sensors.
  - Modify existing embedded system code bases to work with new types of sensors.
  - Characterize and test RFID systems for use in ultra low power embedded applications.
- · Designed test fixtures for both production and R&D use.
  - Developed firmware and software to communicate with and process data from several types of sensors.
  - Characterized sensors, ASICs, and passive components for use in new product designs.
  - Tested the functionality of sensor ICs at different steps in their processing & assembly.
  - Desiged and tuned RF matching networks for use in high power and plasma systems.

## KLA-Tencor/SensArray Internship

June 2005 - December 2011

Electrical Engineering Intern

Milpitas, CA

- · Debugged and performed FA on low power embedded systems under the guidance of Senior System Engineers.
- · Performed PCB/PCA diagnostic work and repair, failure analysis, SMD rework.
- $\cdot$  Developed LabView code to interface with test equipment and embedded systems for automated testing and R&D.

#### PERSONAL & STUDENT PROJECTS

## Bike Light

- Designed a bikelight controller to perform battery monitoring and control RGB LED arrays.
- Calculated power budget based on available power sources.
- Selected appropriate LED drivers for the application.

## Kite Control System for Wind Power Generation

2013 - Present

- Started this project as part of at team at the first Makathon competition (www.makathon.org)
- Designed rigging to control power kite lines
- Developing python code to detect the kite with a webcam using openCV, and control
- Developing python code to interface with Logosol brushless motor controller

#### SJSU Formula Hybrid Vehicle Team

2010 - 2011

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

# **EDUCATION**

San Jose State University B.S. in Electrical Engineering

 $December\ 2011$