

# MICHAEL BELLA

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## TECHNICAL STRENGTHS

<b>Design Experience</b>	High Precision Analog Measurement and Design, PCB Layout Verilog, I2C, SPI, JTAG, RF Matching Network & Amplifiers Design
<b>Lab Skills</b>	Experienced with Oscilloscopes, Network Analyzers, 4Wire LCR Meters Multimeters, Root Cause Analysis, SMD Soldering, Prototyping
<b>Software Tools</b>	Matlab, JMP, Spice, AWR Microwave Office, CADSoft Eagle, IAR Code Composer Studio, Eclipse, Git, SVN
<b>Programming Languages</b>	Python, C, LabView

## WORK EXPERIENCE

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

- Automate functional testing and data processing tasks using Python.
- Design and implement test plans for component and system level testing on upcoming iOS and accessory projects.
- Manage test vendors working on fast paced projects in order to provide test coverage for new product designs.
- Work with cross functional engineering teams and vendors to expedite the root cause of test line issues.

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

Test and Calibration Automation - Production and Research & Development

- Designed and tuned RF matching networks for use in high power and plasma systems.
- Wrote a LabView application to servo the RF current in a low Q resonant LC circuit for sensor calibration.
- Built a higher Q resonant LC system with a parallel plate capacitor for RF displacement current calibration.
- Designed a matching network and power amplifier to couple power into the higher Q resonant system.
- Developed test systems to characterize optical, temperature, radio frequency, and heat flux sensors.

System Design - Research & Development

- Worked with a team of physicists and engineers to develop a high precision ADC platform for sensor research.
- Designed and realized a more robust custom RFID system as a part of a low power sensor platform.
- Adapted existing embedded system firmware and hardware for use with new sensor types for use in R&D.
- Wrote test, automation, and calibration software in both LabView and Python.

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

- Debugged and performed failure analysis on test systems, embedded hardware, and plasma systems.
- Developed LabView applications to interface with test equipment and embedded systems for automated testing.

## PERSONAL & STUDENT PROJECTS

**Class D Amplifier - SJSU EE124 Final Project** 2012

- Designed a class D amplifier using discrete components and operational amplifiers ICs.
- Built my design and demonstrated my amplifier as my final project in my analog design class.

**Bike Light - 1000 lm Headlamp and RGB Tail Lamp** 2012

- Designed a controller using an MSP430 MCU to manage the battery and control the LEDs.
- 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.
- Managed the EE team, developed project time lines, and drove schedule.

## EDUCATION

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