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 implement all tests and to drive issues to root cause quickly.
- 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
- Rewrote MSP430 family MCU scheduling system, sensor interface code, and flash storage management code in order to use a new sensor with the existing low power embedded measurement platform.
- Developed MSP430 firmware to interface with new sensor types being researched for customer applications.
- 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.

Test & Calibration Automation
- Wrote Python software to identify process steps and extract critical features from data taken using R&D prototypes in customer process chambers.
- Developed LabView applications and drivers to automate testing and perform embedded system calibration using test equipment such as Aglient 34410A, 34970A, and 4285A.
- Developed user interfaces with pyQT to allow other engineers to easily use my programs in their work.

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 - (www.makathon.org)   *2013 - Present*

- Developing Python code to detect a kite using openCV and send commands to a Logosol servo motor controller.
- Designing rigging to control a power kite using a servo or stepper motor.

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   *December 2011*
B.S. in Electrical Engineering