MICHAEL BELLA

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TECHNICAL STRENGTHS

Programming Languages	Embedded C, LabView, Python, C/C++
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	Linux Systems, Texas Instruments MSP430 Processor Family I2C and SPI Buses, Low power ADCs, Low Power Sensors

WORK EXPERIENCE

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

· Design and impliment test plans for component level verification on NPI projects
- Work closely with EE teams to develop functional test plans for iPad projects and Accessories
- Work with sensor teams to ensure that all test requuirements are met at the FCT station
- Manage test vendors to ensure that all tests are properly implimentd
- Develop python scripts for test automation as well as data processing
- Work closely with full project team to achieve an optimized test line which still provides full test coverage

· Identify and resolve issues on the test line durring SMT bringup
- Quickly drive issues to root cause
- Identify system interactions vs process instability vs design issues
- Develop solutions which can be implimented at the build

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

· Developed both test and 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.

· Write Python software to process data from new types of sensors being researched in R&D.
- Apply calibration factors and remove intrinsic sensor offset from the data.
- Use feature detection to identify process steps in the data, and perform analysis on each step.

· Design PC software and firmware for use with production and research test fixtures.
- Characterize components for use in new product designs.
- Test and calibrate high precision embedded measurement system boards for use in new products.
- Test the functionality of sensor ICs at different steps in their processing.
- Accurately measure instantaneous power usage of low power embedded systems for use in power budget creation and optimization.

· Debug and perform root cause analysis on a wide range of systems.
· Design and tune RF matching networks for use in high power and plasma systems.
· Characterize and test RFID systems for use in ultra low power embedded applications.
· Write automated test and measurement software in LabView to utilize using network analyzers, impedance analyzers, spectrometers, and oscilloscopes.

KLA-Tencor Internship June 2005 - December 2011
Electrical Engineer *Milpitas, CA*

· Performed PCB/PCA diagnostic work and repair, failure analysis, SMD rework.
· Developed LabView code to interface with test equipment, and custom embedded systems.
· Characterized

PERSONAL & STUDENT PROJECTS

Personal Projects

- Designed a bikelight controller to perform battery monitoring and control RGB LED arrays.

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.
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EDUCATION

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