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	Proficient with Linux, Texas Instruments MSP430 Processor Family

WORK EXPERIENCE

KLA-Tencor December 2011 - Present
Electrical Engineer *Milpitas, CA*

- Debug and perform root cause analysis on systems including manufacturing fixtures, embedded data acquisition systems, and RF systems.
- Write LabView software to acquire and process data from a wide range of lab equipment
  - Network Analyzers, Impedance Analyzers
  - Ocean Optics Spectrometers
  - Digital Multimeters and Oscilloscopes
- Write embedded C for the low power MSP430 processor family
  - Design embedded systems to serve as platforms for new sensor technologies.
  - Adapt existing measurement system architectures for use with new sensor types.
  - 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.
  - Automatically identify process steps in the data, separate them into different data sets, and perform statistical analysis on them.
- Design RF matching networks for use in 13.56MHz systems.
- Design build and program test fixtures and experimental fixtures driven by LabView.
  - Measure on state resistance of DIO pins on an MSP430 microcontroller for use in an error budget workup.
  - Test and calibrate CPU flex circuits at different stages in the build process.
  - 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.

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 the magnetically coupled wafer communication system

EDUCATION

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