# Peter Borenstein

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### WORK EXPERIENCE

JAN 2016 | Hardware Engineer at Critical Alert Systems, Jacksonville, FL

Designed, developed, and coded hospital signalling equipment

MAY 2018 The system coveys calls triggered by patients to nurses. I created a new hub, a screen device to display calls, replaced chime chips with an audio circuit for new alarms, and created firmware for vandal proof room devices. For an Ethernet device close to release, I made minor firmware changes and created a python script to place MAC addresses into the binary programming file and print a

label. Used TI-RTOS.

Organized and pre-tested equipment for UL 1069 certification. Testing included 8kV ESD zaps, impact testing, flame testing, 100,000 button presses, etc.

Performed audio testing with a foam padded box and sound dB meter.

Tested power supplies at max load with dummy resistors to verify safe temperature rise.

Tested Ethernet and RS485 circuits at max cable length.

AUG 2013 | Co-Founder and Hardware Lead at VERIGO, Gainesville, FL

Designed, developed, debugged, and coded a low power wireless data logger

JAN 2016 The devices use Bluetooth Low Energy to communicate logged temperature and humidity data to smartphones & tablets. Passed FCC and CE certifications. Managed two part time engineers brought on after our seed funding round.

Raspberry Pi, Python scripts, and the BlueZ stack were used to create automated test equipment for manufacturing. The end of line tester programmed flash memory, verified power consumption, verified the radio with a connection, took a temperature sample, sect calibration values and date, and recorded the programmed MAC address.

Created python test script to simulate dropped Bluetooth connections.

Performed environmental testing to verify humidity and temperature ranges.

Turned pF capacitance on quartz crystal PCB traces to verify correct radio frequency and time keeping

Created test firmware to simulate full logs to test memory and accelerated radio activity to test battery life.

MAY 2011 | Test Technology Intern at INTEL, Fort Collins, CO

- Simulated pre-Silicon Verilog

MAY 2011 | Created test patterns for Broadwell server chips pre-Silicon. Modeled scan chains allowing others to

run tests. Used Perl to read though lengthy test logs for relevant data.

JUN 2010 | Lifeguard at UNIVERSITY OF FLORIDA HOUSING DEPT., Gainesville FL

Stood watch

Nov 2010 | Provided a safe swimming experience for others.

#### **EDUCATION**

DECEMBER 2013 Bachelor of Science in Electrical Engineering, University of Florida

Major: Electrical Engineering | Magna Cum Laude | Digital Design Specialization

GPA: 3.66/4.0

## **SKILLS**

Top Skills C and Git

Basic Knowledge Python, C++, Perl, Linux system programming, Bash, VHDL IDEs Used IAR Workbench, Code Composer Studio, Atmel Studio

PCB CAD Used Eagle, PCB Artist, Altera

Tools Used Oscilloscopes, Logic Analyzers, Multimeters, SMU

Barr Training Attended embedded software boot camp. Only person to finish the final project.

Agile and Scrum

Used Jira and TFS to optimize meaningful labor

I was recognized for sharing expertise, solutions, and

experience to help other community members

## **UF IEEE STUDENT CHAPTER INVOLVEMENT**

2011-2012 Academic Year Secretary (elected) 2010-2011 Academic Year Advertising Chair

2011 1st place IEEE South East Conference Engineering Ethics Competition