Rachael Marie Sewell

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SUMMARY: Eight years of experience in embedded systems, applications, microchip design, and whole product development. I am energetic and thrive in a fast-paced environment that is quality-driven and goal-oriented. I have a demonstrated ability to quickly learn and apply new concepts. I enjoy taking technical ideas and presenting them in a simple format.

SKILLS:

Software: Microsoft Office, Synopsys (NanoSim, VCS), Cadence (Opus, Spectre), Mentor Graphics Eldo, Adobe FrameMaker, Visio, Matlab, Visual Studio, Perforce, IC Manage

Programming Languages: C++, C, JavaScript, Perl, Shell Script, ARM CM0/CM3 ASM, Intel 8051 ASM, M8C ASM, HTML, XML, SGML, CSS, Verilog, VHDL, SPICE, C#

Platforms: Linux, Android, UNIX, Windows

EXPERIENCE:

Cypress Semiconductor, Lynnwood, WA

May 2011- Present ***Staff TrueTouch Applications Engineer***

Own training, customer demos, internal/external documentation, and kit support for touchscreen applications team.

- Applications lead for the next generation of TrueTouch devices. Created and maintained technical reference manuals, datasheets, user guides, and several requirement specifications.
- Developed several automation techniques to streamline content creation and reuse for TrueTouch documentation.
- Significantly improved touchscreen manufacturing test coverage and GUI ease-of-use. Wrote and performed functional test plans for two software releases.
- Android driver test and customer integration support. Integrated driver into new Android BSP versions and created tablet demos using NVIDIA Tegra3 Cardhu and Panda board OMAP platforms. Created automated build environment for driver releases.

Nov. 2007-May 2011 ***Sr. Electrical Design Engineer***

- Designed BOOT, BIST, and Flash write firmware and build environment for ARM Cortex-M0-based touchscreen controller platform. Firmware is reused on all products in that platform. Found and fixed defects in behavioral Verilog models. Verified design by creating and running block-level unit tests.
- Automated gate, digital and mixed signal test bench to run daily regressions for ARM CM3 and 8051 processor-based SoC devices. Proactively debugged functional and power simulations at block and chip-level for SoC devices before reporting defects to other members of the design team.
- Implemented an intelligent Flash write algorithm in ASM on a SoC device, which maximized Flash lifetime.

Jun. 2006 – Nov. 2007 ***PSoC Applications Engineer***

Provided technical/applications support for new and existing customers.

- Created and presented trainings on delta-sigma modulator applications and SD Card reference code for field applications and sales engineers to enable customer design wins.
- Performed code reviews, schematic review, debug, and design support for a customer that used a microcontroller in a shoe to automatically adjust heel stiffness depending on environment.
- Tested and verified efficacy of new C compiler using multiple test-cases. Ran beta program for multiple customers.

EDUCATION:

University of Washington, Seattle, WA

Bachelor of Science in Electrical Engineering - Embedded and VLSI Design Emphasis, June 2006