

Kevin M. Rolfes

14006 N Green Hills Loop • Austin, Texas 78737 • (512) 638-0972 • kevin@rolfes.org

PROFILE Dynamic 16-year engineering career with proven results in digital IC design, embedded software, signal processing, system level design, information technology, production test and verification. Experienced in managing groups and taking projects from specification to completion. MS in Electrical Engineering.

- **Results oriented** – Reputation as “go-to” person for situations needing immediate investigation and rapid troubleshooting.
- **Innovation and creativity** – Excels at solving problems within constrained resources, regardless of whether those constraints are staffing, money, program cycles, memory, or gates.
- **Self starter** – Adept at proactively identifying needs, prioritizing, delegating and working as needed, and following up to successful completion. Takes responsibility for managing self and team.
- **Attention to detail** – Brings issues to light and provides solutions, before they have a chance to become real problems.
- **Comprehensive experience** – Provides broad perspective. “...the one that best understands the firmware/system requirements and hardware tradeoffs” - Rainer Mueller, Manager, Design Engineering at SMSC.

PROFESSIONAL EXPERIENCE

2009 - Present **Advanced Micro Devices, Austin, Texas**

MTS Design Engineer, Definition Architect

Responsible for driving system visible definition and errata resolution in a complex SoC with multiple x86 cores and an integrated graphics controller. Interact with engineering teams worldwide to gather information and propose behavioral definitions and resolutions to issues. Generate high-quality, detailed specifications that drive large, diverse engineering teams.

2005 - 2009 Sabbatical. Co-founder of Green Hills Arts, handling all business and technology aspects of this venture.

1996 – 2005 **Oasis Design, Austin, Texas** (Acquired by SMSC in March, 2005.)

Principal Design Engineer (2005)

Design Engineer (1996 – 2005)

Multiple roles within a small and fast-growing startup company:

- As a digital IC designer, responsible for design, implementation, and verification of a novel digital filter with multiple clock domains and an interface between an on-chip processor and a routing bus. Both modules were written in VHDL for a 0.25 μ m process and worked on first silicon. The filter was a significant factor in winning Toyota's business, potentially doubling the company's sales.
- Firmware group leader for active speaker IC and software radio projects. Wrote specifications. Developed audio processing software on custom 14-bit/18-bit DSP. Invented a novel double-precision format for more efficient implementation of filters. Managed team of 3 engineers. Created a methodology for modular and reusable software development.
- Firmware lead for new generation of network transceiver system-on-chips. Wrote low level firmware for synchronous, isochronous, and asynchronous data handling. Managed low level firmware development with three developers in three locations.

1996 – 2005
(continued)

- Lead IC verification engineer for two network transceiver ICs. Informally managed up to four other engineers in Austin and Germany. Performed low-level and system-level verification with VHDL simulation and on silicon. Verification efforts led to functional first silicon on both projects.
- Production test firmware for mixed-signal system-on-chip with 4 processors. Reduced test time by almost 30 seconds per part while increasing test coverage. The test time reduction saved the company approximately \$3.2M by 3Q 2005.

IT Manager (1997 – 2003)

- Responsible for all aspects of information technology, including client PCs, file servers, mail server, firewalls/routers, global VPN, security, backups, DNS, internet, version control, telephone systems, and contingency planning.
- Identified problem areas and brought stability to IT within weeks of assuming this role.
- Earned a reputation for cost-effective judgment, critical during the start-up's lean years.
- Expanded systems as the company grew from 15 to 60+ employees.
- Managed two full-time system administrators.

1993 – 1996 **Digisonix, Madison, Wisconsin**

Senior Development Engineer (1995 – 1996)

Development Engineer (1993 – 1995)

Created and implemented DSP algorithms using adaptive filters to perform active sound cancellation in HVAC ducts. Helped to introduce structured programming methods, emphasizing the quality and maintainability of the product software. The software was written using C and assembly and embedded into a TMS320C31 based controller.

1989 – 1991 **Random Corporation, Cincinnati, Ohio**

Engineering co-op

Designed hardware and software for HD64180 based terminals and medical equipment. Other duties included hardware prototyping and research, schematic entry using CAD systems, and test fixture design for use in production facilities.

1988 – 1989 **Texas Instruments, Houston, Texas**

Engineering co-op

Local Area Networks division of Texas Instruments' semiconductor design and test facility. Developed software to supply engineers with data by collecting semiconductor yield information through TI's global computer network.

EDUCATION

1992 – 1994 **Master of Science degree in Electrical Engineering**

University of Wisconsin, Madison

Thesis: "The Automated Software Phase-Locked Loop and the Exploration of an Adaptive Algorithm for the Adjustment of PLL Parameters." This thesis was written with funding from Digisonix through Dr. Greiner's electroacoustics laboratory. GPA: 3.89 / 4.0

1987 – 1992 **Bachelor of Science degree in Electrical Engineering**

University of Cincinnati

Senior project included the design and construction of a MIDI digital audio system. Dean's List for nine of twelve quarters. GPA: 3.66 / 4.0

References Provided Upon Request