

# Rod Wood

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- Education** Major in Electrical Engineering, Rice University, Houston, Texas and University of Texas, Austin. Awarded a Brown Engineering Scholarship at Rice.
- Analog Design** Designed low-level audio circuits. Designed low-noise audio preamplifiers and equalizers. Involved from design through production phase, including drafting, layout, creating BOM, prototyping, testing, training, assembly and quality control.
- Digital Design** Designed microcomputers from chips into complete systems. Designed and implemented a complete 6500/1 (single-chip) microcomputer through the production phase. Designed and built several 8-bit microcomputers using the 6500 series of parts and a 32-bit computers using 68000 series parts.
- Software/ Firmware Design** Experience in high and low-level languages and operating systems. High-level languages include “C”, BASIC, and FORTH. Well-versed in MS-DOS+Windows and MAC-OS. Expertise in assembly languages for “80x86”, “6502/65C02”, and “680x0” series processors. Experience in data-driven applications using a database engine. Familiar with designing human-interface software. Authored a complete language similar to FORTH for use on 65C02 and rewritten for 68000. Created an operating system for an audio-processing microcomputer for use inside a PC.
- Software** Experience with a wide variety of software packages for office productivity, including Microsoft Word, Excel, and PowerPoint, ClarisWorks and Filemaker Pro, Visio, Orcad Capture, and Adobe Photoshop, Illustrator and Pagemaker.



2000-2001

## Senior Field Applications Engineer, NVIDIA, Santa Clara, CA.

Responsibilities: Work closely with engineering customers developing new board-level products using NVIDIA ICs, and help them achieve WHQL certification. Assist sales by providing timely answers to software and hardware questions of designers using NVIDIA GPUs. Create documentation, including Application Notes, Bug Reports, and First Article Inspections.

Accomplishments: Worked with Toshiba, Compal, HP, and Asus to get mobile products to market.



1999-2000

## Senior Applications Engineer, Cirrus Logic (Crystal Semiconductor), Fremont, CA.

Responsibilities: Develop in-house board-level products using Crystal Semiconductor ICs. Create Schematics, BOMs, and User's Manuals. Oversee smooth flow of work from concept to final product. Assists sales by providing timely answers to software and hardware questions of designers using Crystal Semi's DSPs and Analog Converters. Work closely with engineering customers to design Crystal's parts into new products, and help them achieve certification. Manager for technician.

Accomplishments: Designed Analog Docking Station and Digital Docking Station board-level products.



1997-1999

## Applications Engineer, Medianix Semiconductor, Mountain View, CA.

Responsibilities: Assists sales by providing timely answers to software and hardware questions of designers using Medianix' Dolby Pro Logic, Dolby Digital (AC-3), and Parametric Equalizer DSPs. Creates [ISO] documentation for products, including Datasheets, User Guides, and Schematics. Work closely with engineering customers to design Medianix parts into new products, and help them achieve Dolby certification.

Accomplishments: Designed “universal” microprocessor controller for any Medianix DSP, using SPI or I<sup>2</sup>C protocol. Designed circuitry for Samsung powered speaker system. Created Board Development, ESD, and other ISO9001 Procedures and Quality Work Instructions. Created pages for Web-site.



1993 - 1997

## Applications Engineer Multimedia Audio, Yamaha Systems Technology, San Jose, CA.

Responsibilities: Assists sales in providing timely answers to software and hardware questions of designers using Yamaha audio synthesis, digital audio and other related ICs. Work with engineering customers to help design Yamaha devices into new products.

Accomplishments: Member of committees to draft AC97 and IA-SIG 3D Specifications. Developed 1.5 in<sup>2</sup> Reference Design MIDI solution for PCs. Developed clock synchro circuit for matching two parts not normally interconnected. Designed and presented plans for MPU-401 (MIDI) controller using Yamaha's standard cell components.



1991 - 1992

**Programmer 1**, Brøderbund Software, Novato, CA.

Responsibilities: Upgrades and maintenance of MS-DOS "toolbox", similar to Macintosh Toolbox, creation of low-level routines for graphics, animations and audio processing.

Accomplishments: Developed low-level software for the first "Living Books" series of programs. Developed fast decompression schemes for images in "KidShow" (aka "KidPix Companion"). Developed audio compression/decompression for future "Living Books" programs. Worked on database-driven "runtime engine."



1990 - 1991

**Product Manager**, Philips Interactive Media Systems, Los Angeles, CA.

Responsibilities: Training on the use of CD-I (Compact Disc - Interactive) authoring products. Product demonstration and education. Product testing (verification). Development of low-level driver software for OS-9 based machines. Development of product brochures and announcements.

Accomplishments: Participated in start up of CD-I authoring system companies in Japan (Century Research Corporation) and Australia (Keyway). Designed and implemented software method for mixing two CD-I audio channels in real time on an 8 MHz 68000. Produced images for sampler digital disc. Involved in documentation of products (user's manuals).



1986 - 1990

**Digital Design Engineer**, American Interactive Media (a Philips/Polygram Company), Los Angeles, CA.

Responsibilities: Hardware and software integration. Digital and analog circuit design. Product demonstration and education. Sysop for OS-9 based machines. Developed low level software.

Accomplishments: Designed & developed overlay board to allow simulation of CD-I video hardware. Created software to simulate CD-I video on an OS-9 machine (68020). Created tools for font development (font editor), image processing, and image compression/decompression for real-time motion video from digital disc. One image compression scheme was patented.



1982 - 1986

**Digital Design Engineer**, Interac, Woodland Hills, CA.

Responsibilities: Hardware and software integration. Digital and analog circuit design. Product demonstration and education.

Accomplishments: Involved in development of database-driven information kiosk using IBM-PC, including authoring language and run-time engine (CXAL/CXOS). Developed original text/overlay editor for the Automated System for Consumer Information and Training (ASCIT). Developed a videodisc editor. Designed, built, and wrote operating system for 68008-based audio board for IBM PCs that allows capture (digitizing) and playback of analog audio (patented). Designed a digital-delay graphics synchronizer for IBM-PC. Also software interface (drivers) for graphics board (AT&T's VDA board), software interface for NCR and Magnetec printers, test programs for standard ASCITs and VDA-based ASCITs (DX, VDS). Provided marketing support "on the road" for demonstration of system across U.S.

For CALIFONE/Systems Division, developed test procedures for Videodisc-based Information Retrieval System (VIRS), digital delay graphics synchronizer, hardware and software interface for VIRS, and hardware and software error detection and log for VIRS. Also developed high-speed data rate to low-speed device interface and converter for home video game system. Designed a unique tri-phase clock for the operation of three bus masters without wait-states in a multiprocessor computer.

**Previous  
Employment  
Experience**

Available upon request. Includes  
Project Engineer, Great American Sound, Chatsworth, CA.  
Project Engineer, Scientific Audio Electronics, Los Angeles, CA.

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**Personal**

Able and willing to travel on business as necessary. U.S. Citizen, with Current Passport. References available upon request.