

**Richard E. Thurmond (Rick)**

P.O. Box 1045  
Cobb, CA 95426  
(707) 928-0259  
rick@rickthurmond.com  
www.rickthurmond.com

**Special Skills**

Embedded Systems Programming  
Lightwave and Microwave Instrumentation Design  
Hardware/Software/Firmware Interface Design  
Strong Object-Oriented Design and Programming Skills  
LXI (LAN Extensions for Instrumentation) Instrument Design Experience

**Education**

M.S., 1987 – Computer Engineering, University of Southern California  
B.S., 1984 – Electrical Engineering, University of Southern California

**Work Experience****Solmetric Corporation (2008-present)**

Designing embedded software for handheld instrument. Software controls hardware and acquires data. Data is integrated into measurements. Implementing GUI to present data and take commands.  
Windows Embedded CE 6.0 and C++.

**Instrumental Quality, LLC (2007-2008)**

Wrote embedded software for Keithley microwave instruments. Wrote code to display complex waveforms and associated user interface code. Windows CE and C++.

**Volt Technical Services (2004-2007)**

As a contractor at Agilent I designed firmware for an LXI-based microwave instrument and corresponding PC software. Firmware controlled hardware and acquired data. Also wrote alignment code for the instrument. PC software received raw data and turned it into calibrated complex traces. VxWorks and Windows XP, C++, DSP, Hardware Control Firmware, data acquisition. Also C#/.NET.

**Coyote Skies Photography (2001-2004)**

Ran a photographic services and images company providing darkroom and digital imaging services to artists. Produced and sold astronomical and landscape photographs.

**Agilent Technologies/Hewlett-Packard (1995-2001)**

Architected and Designed object-oriented C++ firmware for lightwave and microwave instruments using real-time Unix and other operating systems. Work included device drivers, multi-threaded data acquisition, and hardware control. As architect of the updated LCA I coordinated the work of people in two different divisions to get the product completed on a very tight schedule. As a manufacturing engineer I did troubleshooting on BERT production line to improve yield.

**DSC Communications (1994-1995)**

Designed firmware for OC-3 telephone system. Developed object-oriented architecture for embedded systems.

**Harris Corporation, Digital Telephone Systems (1994)**

Wrote a network driver for a telephone switch using C. Provided hardware control for TCP/IP stack.

**IA Corporation (1992-1993)**

Designed Object-Oriented software in C++ for distributed client/server system on Sun/Solaris workstations. Specific task was the disk I/O server handling millions of transactions per day to hard disk with backup to optical disk.

**Aerospace Corporation (1981-1992)**

Designed hardware and software for real-time simulations to test satellites and launch vehicles. Used real-time Unix, HP-UX, and other operating systems, C, Fortran, and assembly language.