

RONALD T. RICHARD

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TELECOMMUTE ONLY

Education

College of Lake County – Dean’s List
University of Illinois – Springfield – Dean’s List

B.S., Computer Science, Cum Laude, Univ. of Illinois – Springfield, IL
A.A.S., .NET Programming, College of Lake County, Grayslake, IL
(Phi Theta Kappa Honor Society)

Certificate, .NET Programming, College of Lake County, Grayslake, IL
A.A.S., Electronics Technology, College of Lake County, Grayslake, IL

30+ years Experience

TECHNICAL BACKGROUND SUMMARY

- 30+ years of experience designing both embedded and PC-based software, using a variety of languages, ranging from various assemblers through higher level languages, as listed below.
- 40+ years of experience in Digital hardware design
- Practiced SDLC before it had its many names.
- Continuing education evenings to stay abreast of technology
- Self-taught in all programming languages before attaining degrees

- C# - 6+ Years
- C - 25+ years
- VB.NET – 6+ years
- Various micro -processor and –controller assemblers – 30+ years
- MS Office – 20+ years
- Visual Studio (thru 2015) - 15+ years
- Netbeans - 4+ years
- Eclipse – 4+ years
- Android Studio – 2+ years
- .NET Framework – 15+ years
- Visual SourceSafe - 12+ years
- CM Synergy – 2 years

EMPLOYMENT HISTORY

Home Control Software Development (Private Project)
(Home)

7/2008 to Present

Software Engineer

Design software for home automation based on X10 communications protocol. Software based on Home Automated Living concept. VB.NET, C# and .NET Framework 4.0.

- System designed for home lighting, HVAC and security system
- HMI interface
- Data acquisition over X10 communications link
- Designed to interface with system written by Automated Living, Inc.
- Implements OCX supplied by Automated Living, Inc.

CERTIFIED POWER, INC
Mundelein, IL

5/2008 to 7/2008

Sr. Software Engineer (contract)

Design software for Rabbit 2000 Micro-controller (Dynamic C language) to format and exchange data between OEM Snow/Ice clearing equipment,

- GPS systems communications – NMEA
- Wrote serial drivers for GPS
- RS-232 communications to system devices
- various communications devices (WiFi, Data MODEM, Voice/Data Radio) via RS-232
- Specified hardware for implementation
- Designed & built development prototype for project

ELECTRO-MOTIVE DIESEL, INC
La Grange, IL

4/2006 to 2/2008

Software Specification Engineer (contract)

Write custom technical specifications for the development of embedded Windows XP software to control electro-diesel locomotives, including custom GUIs for specific orders.

- Work with off-site software development firm testing and debugging code
- All English GUIs had to be completely redesigned to implement the Chinese character set for the Chinese MoR (Ministry of Railroads)
- Required selection of most appropriate translations for English terms and interpretation of Chinese character translations
- Version Control using CM Synergy

FUEL MANAGEMENT SYSTEMS

10/2000 to 11/2005

Mundelein, IL

Software Engineer

Responsible for developing VB.NET and C# desktop diagnostic software for dual fuel engine control systems, programming of Microchip PIC's and 68HC11 micro controllers for embedded systems; desktop diagnostic program.

- Developed new multi module diagnostic / control program, capable of recognizing varied data streams over RS-232 and self-configuring.
- DSP: A-D, D-A I/O processing
- HMI Interface
- Implementation of third-party Instrumentation GUI Library
- Support of legacy programs
- Designed new hardware / software platform for test / diagnostic PC-based system.
- Assisted customers worldwide via phone.
- Developed multi platform software test system
- Assisted in network maintenance
- Completed college classes in C++, STL and JAVA.
- Wrote serial drivers for various automotive controls
- .NET Framework 3.0

SNAP-ON INCORPORATED

10/1995 to 1/2000

Kenosha, WI

Senior Design Engineer

Responsible for design and upgrading of automotive emissions diagnostic software on embedded systems for state emission testing programs.

- Wrote and maintained programs for TSI and ASM vehicle emissions testing
- DSP: A-D, D-A I/O processing
- System communications over RS-232 data link
- Software written in C and VC++ using Visual Studio 6.0
- Developed method for installing software upgrades which reduced equipment costs 99%, decreased installation labor cost 50% and improved employee morale.
- Initiated purchase of UPS systems for all department computers, resulting in reduced downtime and estimated annual cost avoidances of \$14,000.
- Recognized by management as key resource for troubleshooting, answering questions and implementing departmental training needs.
- Ensured Y2K compliance for 8 state emission programs.
- Communicated with state EPA officials to clarify state specifications for emissions programs.
- Assisted field service personnel via telephone in successfully troubleshooting hardware/software problems.
- Assisted in network maintenance
- System communications over RS-232 data link
- Programs archived in Sourcesafe
- Wrote serial/parallel drivers for various analyzer controls and sensors, DSP

CONSULTANT - PROJECT/DESIGN ENGINEER 1979 to 1995

Skills

Programming Languages:	C, C++, C#, VB.NET, VBA, Java, FORTRAN, PL-1, P1-M, PL-Z
WEB-Based Languages:	HTML, ASP.NET, JAVA, JAVASCRIPT
μP Assemblers:	68000, 6809, 6301, 6502, 68HC11 1802, 2650, 8080, 8085, 8086, Z80
Database:	SQL Server, Oracle, Access
Microcontrollers:	Rabbit family, Microchip 18F family, Atmel 8051
Operating Systems:	MS-DOS, Win 95, 98, 2000, XT, Vista, Windows 7, NT Client & Server, DEC RSX-11M, RT-11, VAX/VMS, CP/M, APPLIEDOS, O/S 2
Hardware Disciplines:	TTL, CMOS, MOS, Discrete transistor logic, D/A, A/D, Communications (RS232, RS422, etc.), analog (op amps, Comparators, discrete)
Platforms:	PC-Based and embedded
Additional Skills:	Purchasing, Quality Control, Quality Assurance, Manufacturing, Customer Support, Engineering Project Liaison

TRAINING AND SPECIAL SKILLS

Completed courses towards C.Q.E. (Certified Quality Engineer)

I.C.S. Electrician courses

Various specialized courses given by employers

COMMUNITY INVOLVEMENT

Chairman, Lake County Y.M.C.A. Camp Jorn Maintenance Committee, 1991 to 1993

Volunteer Instructor for Windows 95 and Internet, Lake County, Y.M.C.A. 1994 – 1996

Lake County Y.M.C.A. Camp Jorn Board of Managers, 1986 to 2000

Chairman, Lake County Y.M.C.A. Camp Jorn Technology Committee, 1997 to 2000

System Administrator and Webmaster, Lake County Y.M.C.A. Camp Jorn 1997 to 2000

Webmaster for high school reunion WEB site, 2000 to 2001

(created photo CD and custom VB program for viewing)

Winthrop Harbor Representative, Community Advisory Panel, Zion Nuclear Power Plant

Waukesha County Technical College - IT Web & Software Development Advisory Committee

2008 – 2010