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Objective

Help you solve technical problems. I'm a computer and electrical engineer with very broad experience in manufacturing, test engineering, IT, software development and project management. I specialize in applying science and discipline to problems of all types to find an optimal solution.

Education

B.S. Computer and Electrical Engineering

5/1988

Purdue University, West Lafayette, Indiana

Emphasis: Controls and Computer Systems

GPA 5.0/6.0

Continuing education efforts include courses in C#, Visual Basic, .Net, C++, PHP, MySQL, ASP.Net, JavaScript, VBScript, WMI.

Highlights

Manufacturing Process Improvement

An automotive supplier's high-volume assembly lines had scrap rates from 1.5% to 30%, costing the company over \$5M per year. My original contract was just to provide a new piece of equipment on one of the lines; it quickly expanded to include work on their scrap issues. The work involved a variety of disciplines from analog electronics to data collection to machine tooling. In the end I reduced their scrap by over 80% resulting in annual savings around \$4.5M.

Improving the Customer's Test Engineering

A manufacturer's in-house test engineering staff needed help with its workload. They contracted me to design two test systems for their plant, but it quickly became apparent that their productivity was suffering from a series of poor technology choices. After demonstrating some modest design improvements, the first two tests blossomed into a series of 15 new test designs spanning 25 machines. The effort included supervising up to 7 engineers in software, mechanical and electrical design. Migrating the customer's test systems to standard technologies delivered results:

- 66% decrease in development time
- 90% decrease in system complexity
- 95% decrease in the required supporting documentation
- Improved accuracy and reliability resulting in fewer false rejects
- Simpler, more intuitive user interface
- Simplified and improved calibration
- Simpler diagnostics, faster repair and reduced downtime
- Rapid model changeover
- Improved error proofing

Multi-Vendor Troubleshooting

A large component supplier had trouble starting up its new assembly lines in central Mexico. Fifty PC based controllers on the three new lines were behaving erratically, threatening a production readiness deadline with their customer just a few weeks away. Two engineering firms, the computer supplier and the control software provider couldn't agree on the root cause. The component supplier contracted me to investigate and isolate the root cause. After isolating the problem in the PC hardware, they converted my contract to supervise implementing temporary fixes to satisfy their deadline.

Small Project Management

A national paper producer needed to integrate their production line to the corporate production control database. I was originally contracted to develop the data collection machine. After some initial designs the customer extended our business into a collaborative effort to refine the system. Eventually he tasked me to supervise the assembly and installation of 48 copies the system to 40 plants across the country. As the team leader for the project I developed and directed all phases of the effort including:

- Design, documentation and BOM
- Purchasing
- Build procedures, installation procedures
- Assembly and installation team training
- Assembly
- Shipping and travel
- Installation
- Scheduling and budget

Specific Job History

Technical Leader

5/2012 to 10/2012

HP, Franklin, Tennessee

Directed flexible teams of sizes ranging from 1 to 10 IT professionals in rapid trouble remediation in a very large medical information system. Effort spanned a wide variety of technologies from databases, C#, WPF, .Net, WCF services Message Broker services, Blaze Rules, web portals and external vendor data.

Test & Migration Team Leader

10/2010 to 5/2012

HP, Overland Park, Kansas

Developed and implemented software QA processes and tools for a series of internal SharePoint applications using HP ALM (Quality Center). Developed and supervised global data migration team that reconditioned and ported site collections between two large applications.

Software Test Team Leader

10/2009 to 10/2010

HP, Indianapolis, Indiana

Supervised team of up to 12 software engineers performing regression testing and change control for hybrid vehicle embedded control software. Developed

test environment/procedural improvements resulting in 300+ percent productivity improvement.

Software Engineer 3/2006 to 10/2009

HP (and previously EDS), Indianapolis, Indiana

Programmed hybrid vehicle embedded controllers in **Simulink** and **C** using **INCA** and **CM Synergy**.

Test Engineering Team Leader 10/1994 to 3/2006

EDS, Anderson/Fishers, Indiana

Designed test systems using **GPIO, VXI, PXI, PCI, ISA, and STD bus** platforms with components from **Agilent, National Instruments, Tektronix, VXI Technologies, Keithley, Allen-Bradley and OPTO-22**. Included proposal development, customer relations, project planning, change control and workload management for small teams (2-8 engineers as needed) though several highly technical projects. Programmed test controllers and **DSP embedded systems** extensively in **Visual Basic and C**. **Designed electrical measurement and control systems** using **AutoCAD**. Position also required close coordination with mechanical engineering teams, plus documentation, validation and service support.

Project Engineer 6/1988 to 10/1994

Control Concepts, Inc., Indianapolis, Indiana

Designed industrial testing, data collection and control systems.

Programmed extensively in C and designed control systems using AutoCAD. Additional programming included C++ and BASIC programming for **Windows** and **OS/2**. Also experience using industrial control software packages, most notably **Wonderware's Intouch** and **Fanuc robotics (Karel)**.

Applications included:

- Component and appliance testing.
- Process/Inventory data collection and analysis.
- Packaging machine control.
- SCADA systems.

Engineering Support Technician 6/1986 - 8/1987 (student job)

Landis&Gyr Metering Inc., Lafayette, Indiana

Wrote technical documentation for C language database software library.

Maintained user manuals. Performed limited C programming.

Communications Maintenance Supervisor (NCOIC) 8/1982 - 8/1983

Communications Maintenance Crew Chief 7/1980 - 8/1982

Communications Technician 8/1978 - 7/1980

U.S. Air Force

Supervised eight maintenance technicians for two communications stations. Performed component level maintenance on HF, UHF and microwave radios and multiplexer systems. 'Secret' security clearance.

Air Force Commendation Medal 2/1981

Honorable Discharge, Rank E-5, Staff Sergeant 8/1983

Computer Technologies

Programming Technologies

Visual Basic (1.0 - .Net 2010), C#, and C. Additional experience in Simulink, MatLab, PHP, VBA, JavaScript, C++, HTML, Assembly and some graphical programming environments. Projects also employed **SQL, LINQ, WPF, COM, DCOM, XML** and **National Instruments' TestStand** and **HP ALM (Quality Center)**.

Operating Systems: Developed applications on: Windows, UNIX, DOS, OS/2, VMS

Platforms: Completed computers systems design on **ISA, PCI, VXI, PXI, STD bus** computers.

Software Tools: Proficient in **Microsoft Visual Studio, Microsoft Office, CM Synergy** and **AutoCAD**

Personal

I'm a craftsman at heart and usually involved in an interesting assortment of art glass work, A/V electronics and computer projects.