

Joe A. Person *Hardware/Software Engineer*

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OBJECTIVE

Attain an engineering position with opportunities for technical leadership. Utilize my experience in software, hardware, troubleshooting, coordination and good interpersonal skills to reduce development costs and improve product competitiveness.

SUMMARY OF EXPERIENCE

- » Troubleshooting hardware and software combined problems; defining the problems and the issues, then integrating their solutions.
- » Presentations to upper management on status, problems, new ideas, and cost savings changes.
- » Expediter - coordinated hardware staging & software integration under an aggressive schedule.
- » Component level/System level - Design and integration of Acceptance Test Procedures (ATP).
- » Structured software design.
- » Real-time software for automated instrumentation applications.
- » Real-time firmware using co-processors.
- » Real-time Digital Signal Processing (DSP) firmware.
- » Real-time satellite telemetry and command system.
- » Integration of real-time Hardware/Software and instrumentation systems.
- » Synchronous, asynchronous, and parallel communications interfaces hardware and software.
- » Designed and implemented real-time data acquisition hardware and sensors.
- » Hardware and software design for computer controlled test equipment.
- » Evaluated commercial data acquisition and computer systems for specific applications.
- » Programming for graphics applications and report generation.
- » Taught college level computer programming and mathematics.
- » Published article: "Interfacing Stepper Motors to a Personal Computer." Oct, 1983 Issue, *InCider* magazine.

LANGUAGES, SYSTEMS, and INTERFACES

HP series 300 & 700 workstations (HP-UX)	HP's: TDE, VEE, ITG Drivers	HP 35, 9816, 9836C
Micro VAX III (VMS)	Pascal	Turbo C
VAX 8700 (VMS)	KXJ I/O Processor	Micro-Power Pascal
PDP 11/70	Macro 11 Assembly	HP BASIC, HPL
PC's	FORTRAN	Forth
RS-232, RS-422, RS-423, RS-485	Motorola 6800, 6502, 6809	Motorola 56001
Analog Devices 2101	IEEE-488	Opto 22

DISCIPLINES

- » **Project Leader**
Lead a technical team to improve system testing methods. Coordinated integration and delivery of a distributed real-time system. Coordinated Acceptance Testing, along with integration of software and real-time hardware.
- » **Instrumentation**
Designed and implemented monitoring systems and automated test equipment interfacing with microprocessors, PC's, HP computers, VXI, Apple, A/D boards, D/A boards, I/O ports, parallel interfaces, serial interfaces, HP GPIO and HPiB interfaces.

» **Software/Firmware**

Structured design programming, following to end of integration and installation real-time software, Computer Human Interface (CHI) software, Digital Signal Processing (DSP), device handlers, and communication protocols for real-time applications and embedded systems.

» **Simulation**

Designed and integrated software to replace hardware components to save manufacturing costs. Software and hardware work with real-time computer controlled automatic test equipment. Accessory and component testing.

EMPLOYMENT *References available upon request.*

July 1990 - Present, Consultant. Worked at the following companies: ABC Company; DEF Corporation; GHI, LTD; JKL Company, MNO, Inc.

- » Developed System Functional Test (SFT) software written on HP workstations under UNIX, using HP's Technical Development Environment (TDE) and Visual Engineering Environment (VEE) software, (H/W and S/W acceptance tests) for computer controlled instrumentation systems. Debugged and modified instrument drivers written in HP's ITG language.
- » Worked with customers to finalize requirements, then designed and wrote requirements specifications documents.
- » Wrote documents for requirements flow-down to subcontractors; coordinated with these subcontractors to design and integrate hardware.
- » Performed requirements analysis. Prepared a Design Specification Document. Interfaced with subcontractors and vendors for technical evaluation of proposals. Worked with subcontractors to implement the design.
- » Developed software for the following applications: INTEL 80188 firmware for telephony; DSP firmware on Analog Devices 2101 for telephony; Motorola 56001 DSP processor for CD quality sound; automated PC based FAX system.

June 1990 - May 1991, Project Leader. PQR Company, San Jose, CA

- » Used W. Edwards Deming Total Quality Management (TQM) tools to lead a technical team to improve the process of how the department performs hardware testing. Developed and wrote test procedures.
- » Coordinated software development and hardware design along with the integration and delivery of a distributed real-time system. Tracked and performed forecasting of the project budget. Presented project status and budget to management.
- » Bridged the gap between hardware and software departments. Evaluated problems to identify the areas of discrepancies. Also worked with engineers from both hardware and software departments to integrate the most cost effective solutions.

February 1987 - June 1990, Software Engineer. STU Corporation, Santa Clara, CA

- » Developed a multi-process software system for an embedded I/O processor that handles a time critical I/O interface which communicates with the Micro VAX III via shared memory.
- » Developed the software package and integrated the hardware for a computer controlled monitoring system that monitors the kilns which bakes STU 's space vehicle tiles.
- » Evaluated the latest technology in computer automated process control systems to bring data acquisition systems on-line with less cost and in less time.

May 1984 - January 1987, Consultant. VWX Agency, Dearborn, Michigan at ABC Company, Electronic Component Division, Indianapolis, Indiana

- » Developed software packages, designed hardware interfaces and modified test fixtures for: calibration, equipment control, data collection, automated data analysis, digital signal processing, report generation including graphics data displays and long term data storage.

May 1983 - May 1984, Software Engineer. DEF Corporation, Louisville, Kentucky

- » Developed reflector design software for fiber optics applications.
- » Developed graphic reports, generated via vector plotters along with mechanical dimensions and specifications for the reflector's.
- » Purchased equipment and development of a computer electronics laboratory.

September 1982 - May 1984, Instructor. EASTERN KENTUCKY UNIVERSITY - Mathematics Department

- » Taught computer programming language BASIC, pre-algebra and algebra.

EDUCATION

Eastern Kentucky University - 1984 Bachelor of Science -- Applied Physics Minors -- Computer Science, Computer Electronics, and Mathematics

ACTIVE CLEARANCES: EBI, DOD Secret